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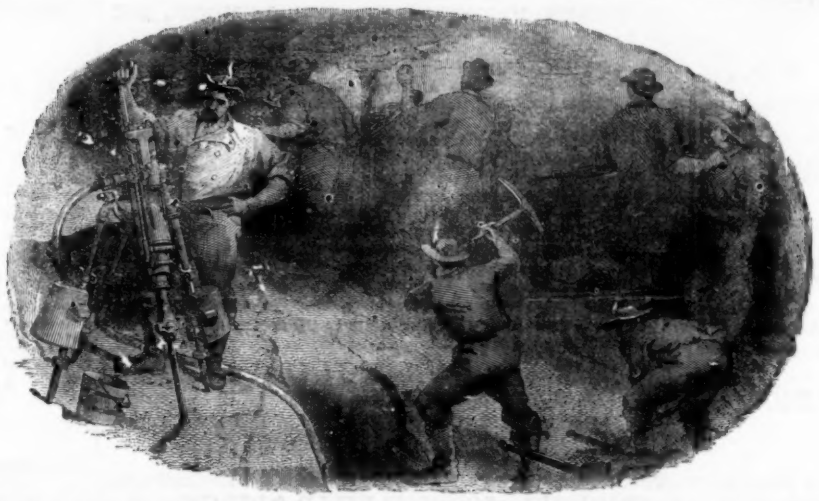

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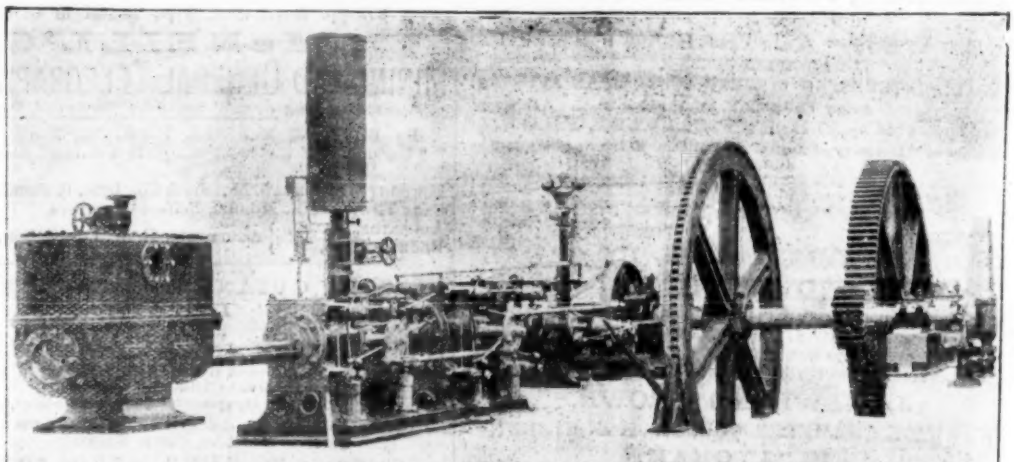

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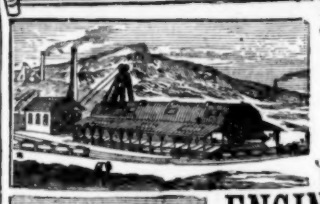
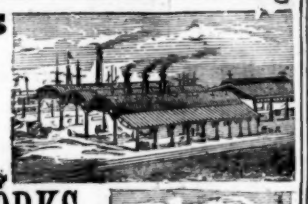

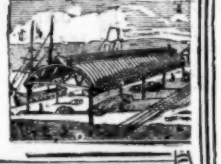

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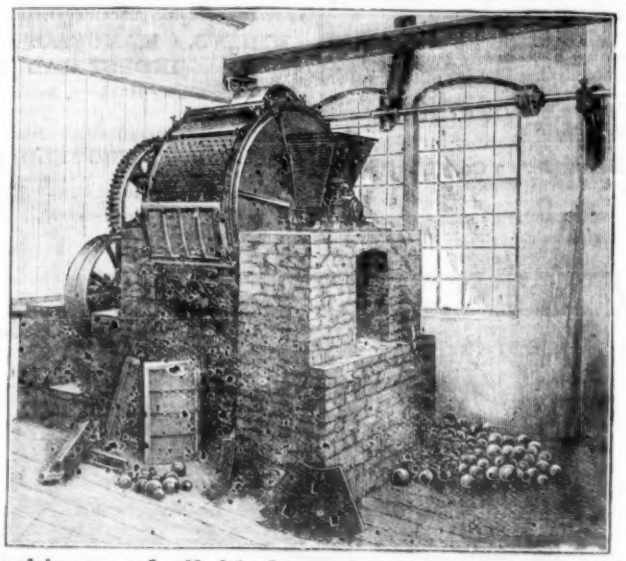

ORE-CONCENTRATION
System of Bilharz.

DRY SEPARATOR
OF
PAPE-HENNEBERG

3. Disintegrating Machinery of all kinds, such as Patent Ball Mills for Ores, Quartz, Cement, Basic Slag Grinding, &c. Excelsior Mills for Food Products, also for Tanneries, Chemical Factories, Sugar Factories, &c. Stone Breakers, Roller Mills, Crushers, &c., &c., Runners.
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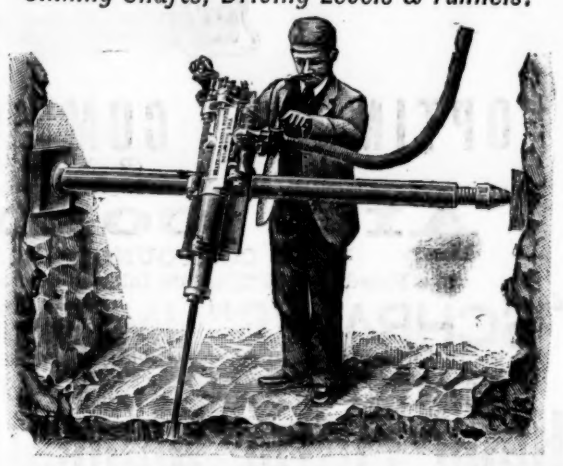
ROCK DRILLS
Have all the latest improvements resulting from 19 years' practical experience in constant work.
Unrivalled for efficiency and durability in Sinking Shafts, Driving Levels & Tunnels.



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WITH
INDICATING SIGNAL BELL
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As shown in Illustration.
Or either of the two separately as required.
Made to suit any Winding Engine or for hauling purposes; with Bell, to denote when to cut off steam; which can be altered in a few minutes to ring at any part required.
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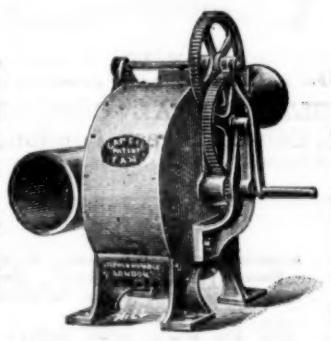
Hundreds in use driving Air through pipes up to 350 yards long.



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Every Miner, Metallurgist, Investor in Mining Property, and every Dealer in Minerals and Metals should subscribe for it.
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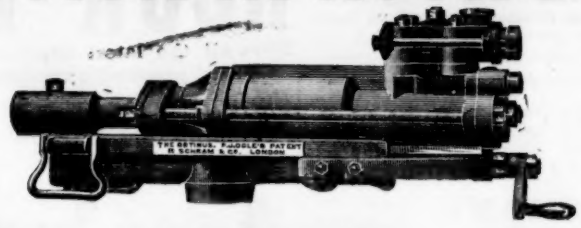
REVOLUTION IN ROCK DRILLING



"OPTIMUS" COMPOUND ROCK DRILL.

(P J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

AIR COMPRESSORS

WITH COMPOUND AIR AND STEAM CYLINDERS,

Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.

"SCHRAM'S" IMPROVED ROCK DRILLS,

SUPPLIED TO THE INDIAN, COLONIAL, AND OTHER GOVERNMENTS.

2500 IN USE IN ALL PARTS OF THE WORLD.

Hand-Power Diamond Prospecting Drills.

ESTIMATES AND FULL PARTICULARS ON APPLICATION.

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From His Grace the Duke of Rutland.
Belvoir, Grantham,
December 1st, 1879.

SIRS,—Elliman's Royal Embrocation is used in my stables; I think it very useful.
RUTLAND.
Master of the Belvoir Hounds.

From the Earl of Harrington.
January 9th, 1889.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it the best that I can obtain. HARRINGTON.
Master of the South Wilts Hounds.

From Major M. J. Balfe, South Park.
June 16th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I can nighly recommend it.
M. J. BALFE.
Master of the Roscommon County Staghounds.

ELLIMAN'S ROYAL EMBROCATION

USING ELLIMAN'S EASIER HAULAGE

From Lord Haddington, Tyningham, Prestonkirk, N.B.
December 27th, 1885.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds.
HADDINGTON.
Master of the Berwickshire Hounds

From R. Burdon Sanderson, Esq., Warren House, Belford
July 10th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it very useful.
R. BURDON SANDERSON.
Master of Percy Foxhounds.

From Wm. J. Buckley, Esq., Penyfai, Llanelly.
July 16th, 1892.

DEAR SIRS,—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.
WM. J. BUCKLEY.
Master of Carmarthenshire Foxhounds.

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FOR ALL ENGINEERING WORK.

STRONGER AND MORE DURABLE THAN STEEL.

Specially Adapted for MINING WORK

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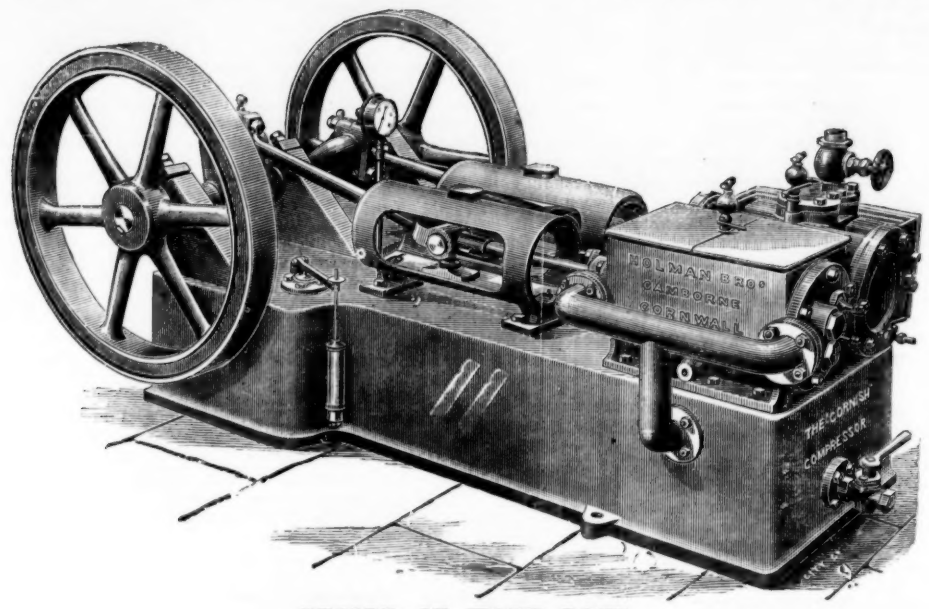
"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR



RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS,** equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES,** and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

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JOHN DAVIS & SON,

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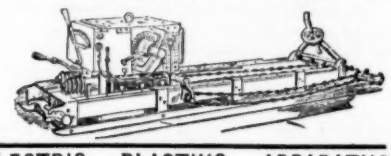
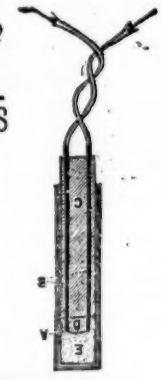
Jeffrey Machines for Undercutting Coal,

WORKED EITHER BY ELECTRICITY OR COMPRESSED AIR.

OVER 500 IN USE.

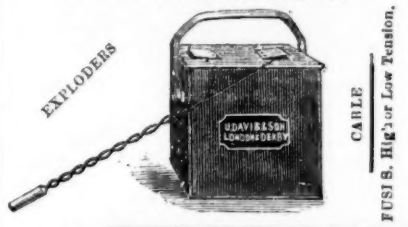
FULL PARTICULARS UPON APPLICATION





ELECTRIC BLASTING APPARATUS

HIGH OR LOW TENSION SYSTEMS.



REVISED CATALOGUE UPON APPLICATION.

SEC. A. MATHEMATICAL, MINING INSTRUMENTS, MINERS' LAMPS, &c

SEC. B. ELECTRICAL PLANTS AND FITTINGS.

HENDERSON'S RAPID TRAVERSER.

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OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS:

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The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their **CLARKSON-STANFIELD** plant working on a Refractory Low Grade Gold Ore.

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**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal. March 4 (*Warwick*).—For supplying the Town Council with coal for six months from March 25. Tenders, specifying description and price, to be sent to Mr. Brabazon Campbell, town clerk. Forms of tenders can be obtained at the Town Clerk's Office.

Fishplates. March 5 (*India Office, S.W.*).—The Secretary of State for India in Council is prepared to receive tenders for supply of steel fishplates, steel fishbolts, steel rails, and steel sleepers. Conditions of contract may be obtained on application to the Director General of Stores, India Office, Whitehall, S.W., and tenders are to be delivered at that office by 2 p.m. on March 5.

Iron Fencing. March 7.—For the supply and fixing of about 600 yards of wrought-iron unclimbable fencing for the Estate Committee. Specifications and particulars can be obtained on application at the office of Mr. E. Buckham, M.I.C.E., Borough Surveyor, Town Hall, Ipswich.

Waterworks. March 11 (*Neath, near Glamorgan*).—For the construction of an underground service tank (18,000 gallons capacity), the laying of 1774 lineal yards of 3 inch and 487 lineal yards of 2 inch cast-iron water-pipes, together with all valves and fittings, in the hamlet of Resolven, for the Neath Rural District Council. Plans may be seen and copies of the specification and approximate bill of quantities, with form of tender, may be obtained at the offices of the engineer, Mr. W. E. Clason Thomas, A.M.I.C.E.

Coal. March 12 (*Worcester*).—For supply during 12 months ending June 30, 1896, of best engine slack for the waterworks; also of best smokeless steam coal for the steam-roller for the Corporation. The whole to be delivered and stacked at such places, at such times, and in such quantities as may be required. Samples of at least 10 tons of the slack will be required for trial before any tender is accepted, and part thereof will be kept for comparison. Tenders to be delivered at the office of Mr. Samuel Southall, town clerk, Guildhall, Worcester, by March 12.

Railway Construction, March 25 (*Mallaig, Scotland*).—For the works required in the construction of a railway (about 3¾ miles in length) from near Fort William to Mallaig—to be let in one contract—for the West Highland Railway Company. Plans and specifications may be seen and detailed schedules of quantities obtained, on payment of £5 5s., at the offices of Messrs. Simpson and Wilson, 175, Hope Street, Glasgow, on and after March 4.

Railway Works May 2 (*Cairo*).—Tenders are invited for the earthwork, masonry, pitching, buildings, and other works necessary for the line from Nag Hamadi to Keneh, for the Egyptian Railway Administration. Payments are guaranteed and will be made by the Commission of the Public Debt, Egypt. Tenders will be received at the Railway Administration Offices, Cairo. Conditions, general and technical description of works, may be seen during office hours on application to Colonel Western, Broadway Chambers, Westminster, S.W.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

2950 Henry D. Mann Thomson, and William Ackroyd Bower, 62, St. Vincent Street, Glasgow.—Improvements in ore relating to blast furnaces.—February 11.

2975 John Anderson, 323, High Holborn, London.—Improvements in or relating to motors.—February 11.

2997 Samuel Chatwood and Samuel Rawsthorne Chatwood, 24, Southampton Buildings, Chancery Lane, London.—Improvements in and connected with steam generators and furnaces therefor.—February 11.

2999 The Cowper-Coles Galvanising Syndicate (Limited), and Sherard Osborn Cowper-Coles, 47, Lincoln's Inn Fields, London.—Improvements in and means to be employed for the obtainment of zinc from its ores, and the electro deposition of zinc upon iron or other metals or alloys.—February 11.

3003 William Phillip Thompson, 31, High Holborn, London.—Improvements relating to the regulation of electric motors.—February 11.

3050 William Anthony Lees and Frank Farnworth, 6, Bank Street, Manchester.—Improvements in apparatus for preventing smoke or increasing combustion of steam boiler furnaces.—February 12.

3070 Alfred Joseph Southwell, 12, Station Road, West Croydon.—Improvements relating to hydraulic and steam pressure gauges.—February 12.

3090 James Sutherland, 45, Southampton Buildings, Chancery Lane, London. Improvements in ore crushers and amalgamators.—February 12.

3100 David Joy, 47, Lincoln's Inn Fields, London.—Improvements in valve operating devices for steam or other motive power engines.—February 12.

3111 John Steel Dixon Shanks and Thomas Harrison, 42, Brougham Street, Belfast.—Improvements in furnaces of steam boilers.—February 13.

3168 John Stewart MacArthur, 52, Chancery Lane, London.—Improvements in obtaining gold and silver from ores or like compounds.—February 13.

3208 George William Elliott, Meersbrook, Park Road, Heely, Sheffield.—Improvements in rock and coal drilling machines.—February 14.

3303 Joseph Baxeres Torres, 13, Golden Square, London.—Improvements in extracting gold and silver from ores and the like.—February 15.

3336 William Ackroyd, William Best, and John Peel, 33, Chancery Lane, London.—Improvements in or connected with apparatus for electrically lighting miners' safety lamps.—February 15.

3428 John Tweedy, 45, Southampton Buildings, Chancery Lane, London.—Improvements relating to the balancing of steam and like engines.

SPECIFICATIONS PUBLISHED.

1230, Lennox, steam engine boilers, 1894; 2622, Horne and Furneaux, steam boilers, 1894; 3171, Culpan, steam traps, 1894; 3724, Weir and others, steam boilers, 1894.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each including postage.

ANSWERS TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

YORK.—As far as we know, he is respectable.

JOHN.—We do not advise a purchase of them now.

E. O. F.—Do not purchase any of them.

GLOUCESTER.—We think it would be best for you to hold for the present.

W. S.—There is some hope of a small improvement in the stock.

T. E. W.—(1.) We do not care to recommend it.—(2.) These should be held.

C. W. S.—You have not sent your name and address.

J. S. D.—We regard them as a fair gamble. They are not suitable for investment.

INQUIRER.—We think it is too early yet to look for a dividend. You might hold the shares.

HESPERUS.—(1.) So far as we know it is honestly managed and has fair prospects.—(2.) Hold for the present, as the shares are likely to have a moderate rise, then sell.—(3.) Hold.—(4.) Caratal possibly, but leave the other alone.

VERITAS.—We know nothing against them.

DERBY.—Hold for a moderate profit in each case.

A. J.—We do not recommend either purchase.

STOKE.—We do not consider them a good purchase.

R. E. L.—We do not expect the price to fall.

J. H.—(1.) Likely to advance.—(2.) Very speculative and not very hopeful.—(3.) A gamble.—(4.) Fair prospects.

C. L. C.—(1.) Sell when at a fair premium.—(2.) Sell.—(3.) Hold for a speculative rise, then sell.—(4 and 5.) Sell.

The first batch of allotment letters in the UNITED NICOL GOLD MINES OF WESTERN AUSTRALIA (LIMITED) have been posted.

THE CYANIDE PROCESS.

ITS PRACTICAL APPLICATION AND ECONOMICAL RESULTS.

By A. SCHEIDEL, Ph.D., E.M.

B.—Percolation Process.

(Continued from page 207.)

(b) Tailings are treated in substantially the same way as ores, and the quantities being large and the grade low, the vats of the largest size and the most complete arrangements for saving labour in charging and discharging are necessary for profitable working; generally speaking, the difficulty of discharging the vats is increased by the increase of their diameter and their depth. "Several difficulties arise in the case of tailings, which do not usually present themselves with ores. These difficulties are chemical and mechanical. The chemical difficulties have been described in the chapter on chemistry; no general rules can be applied to them; each case has to be investigated and steps taken accordingly. The mechanical difficulties arise from the tailings being derived from the operation of wet crushing. When tailings are charged in a wet state into the percolating vat, they are apt to remain in lumps, from which the water has to be expelled by the cyanide solution before the latter can effectually do its work. It is obvious that where tailings are already saturated with water, the cyanide solution will have a difficulty in penetrating, and this difficulty is increased when the wet tailings are held together in masses, between which the cyanide finds an easier channel for flowing than by soaking through them. This is merely a form of the channels above referred to. Assuming, however, that these channels are not formed, the tailings in a wet state mass or pack together to such an extent as seriously to retard percolation. Another difficulty which arises from the tailings being wet, is that in clayey ores the slimy portion of the mass is apt to gather into a layer by itself, which, if formed of real clay, not only impedes but absolutely prevents percolation. In order to overcome this difficulty, the simple method of drying and mixing should be adopted. The drying is a mere preliminary to the essential of thorough mixing. Particles of clay, which are not kept apart by sand, will agglomerate and form water-proof strata. It is impossible, unless the whole material is perfectly dry, to get the particles of clay separated from each other, and allow the sand particles to intervene. Even when this is done, the tendency of the clay particles to agglomerate must be guarded against and prevented. The principal precaution necessary is that the solution, whether applied from top or bottom, should not flow more quickly than the dry tailings can absorb it. In many respects upward percolation has an advantage, but principally because the flow of solution is against gravitation. In downward percolation, where the flow of solution and gravitation act together, the whole material tends to become compressed into a cement, through which the solution penetrates but slowly, preferring to take the easier course down the sides of the vat—and, in fact, going around rather than through the tailings. Alternate upward and downward percolation may be found useful in some cases."

The percolation vats are charged with tailings to within a few inches from the top, and their surface is levelled. The cyanide solution of (say) from 0·2 to 0·8 per cent. of strength, is then permitted to penetrate the tailings, till the liquid covers them. The contents of the vat will settle some inches, which shrinkage depends on the depth of the vat and the percentage of moisture in the material. The solution is permitted to remain undisturbed in contact for (say) 12 hours; after that time it is allowed to drain off. As the liquid is drawn off, it is replaced by fresh solution. This operation is continued for a longer or shorter period in accordance with the value of the tailings (about 6 to 12 hours in the works of the Robinson Company at Johannesburg). After this time, which is termed the "strong solution leaching," a weaker solution, containing (say) from 0·2 to 0·4 per cent. of cyanide, is turned on, which filters through the ore for about 8 or 10 hours. This weak solution, when drawn off, is treated separately (see above). At last, water is run on the tailings for replacing the last weak cyanide solution. The volume of solution in constant use and circulation remains the same. The weak cyanide solution is the liquor which has previously passed through the process by which the gold and silver are precipitated and has from the sumps been pumped back into the vat.

The percolation vats, which used to be square, are, in new works, round. The cyanide solution of the described strength has no appreciable deleterious effect either on the wood of the vats or on the iron pipes and iron valves of the pumps. Iron or steel vats may be protected by a coating of coal-tar and asphalt, or a solution of asphalt in turpentine, preferably put on hot, if special reasons make such protection desirable. The quantity of cyanide solution used for the treatment of 1 ton of tailings amounts generally to ½ ton of strong solution and ½ ton of weak solution and wash.

When the percolating process is finally completed, the exhausted tailings, or residues, are discharged in older works by being shovelled out over the side. More modern works have trap-doors at the bottom of their vats for discharge. "Sluicing out" of the residues is being practised in several localities. The large vats of the Langlaagte Estate Company's works at Johannesburg, which hold 400 tons of tailings each, are discharged by means of running cranes.

It must be always borne in mind that the most complete arrangements for saving labour in charging and discharging large quantities of low-grade material are necessary for profitable working. In order to achieve that end, a plant should offer all such facilities which circumstances permit; it should be so arranged that the tailings will not have to be lifted, but can be dumped into the percolation vats. The size of the vats has been constantly increased. New works, like the Roodepoort Works at Johannesburg, are supplied with vats 40 feet in diameter.

All vats should be some distance above the ground, so that leaking can be easily detected; concrete foundations for the vats are generally adopted. The wooden tank material is an absorbent of both cyanide and gold, particularly when new. It has been found at the Salisbury Works, Johannesburg, that pine wood lying 34 hours in a 0·3 per cent. cyanide solution reduced it to 0·05 per cent., while cement reduced it to 0·24 per cent. Cement tanks have come into use of late, and have proved satisfactory; such tanks and vats may advantageously be built into excavations in solid ground. Many attempts have been made to discharge tailings pulp direct from the plates, or ore pulp direct from the mortars into the percolating vats, but their successful treatment by cyanide, when so discharged, has been prevented by mechanical causes, the reason being that the material packs so densely in the vats that it makes percolation an extremely tedious operation, and in consequence of the presence of slimes the results are unsatisfactory. The advantages of wet-crushing over dry-crushing are, from an economical standpoint, so obvious, however, that experiments will be continued, and, ultimately, the drawbacks which now adhere to the method may be overcome. Cyanide of potassium solution has been used, in some instances and in an experimental way, in lieu of water in the mortars, when wet-crushing was resorted to, but does not appear to be practised anywhere at present. An innovation in percolation consists in the circulating system, which will be described in detail in connection with the practice of the cyanide process in South Africa.

(c) Percolation of Concentrates.—"These are treated similarly to ores, but being generally richer require a greater number of percolations, and thereby a much longer time. In most cases, their quantity is limited, and the size of the percolation vats varies in accordance with the quantity." I have, in most cases, given agitation the preference to percolation for treatment of concentrates, on account of its greater cheapness and rapidity; in Africa most companies prefer the latter method. Percolation of concentrates requires about 20 days, the reason for which will be found partly in the coarser character of the gold, partly in its being in the form of amalgam, and mainly in the difficulty the solution has in penetrating between the faces of the sulphuret crystals. A difficulty sometimes arises in the percolation of concentrates, owing to the crystalline form of iron pyrites and galena. These minerals crystallise in cubes, and when suspended partially or wholly in a fluid tend to range themselves face to face, so that a section of such a mass deposited from a fluid would resemble a brick wall in structure. This difficulty does not arise in the case of sand or minerals which crystallise in other systems. Whenever it occurs, it may be overcome by mixing the cubical sulphurets with coarse sand.

C.—Cyanide and Cyanide Solutions.

The best strength of solutions to use in either percolation or agitation depends entirely upon the nature of the ore, and it is impossible to set any rule. The strength of solutions generally used varies from ¼ to 1 per cent. of cyanide. (In reference to the determination of the correct strength to be used in treating any class of ore, see chapter on laboratory work.) For convenience and economy of work, the solutions are generally divided into three classes:—No. 1, No. 2, and No. 3, of which No. 1 is the strongest and No. 3 the weakest. Assuming that the material under treatment does not require a preliminary alkaline wash, or that such treatment has already been completed, it is usual to run on a weaker solution, say No. 2, in the first place, and after its percolation to use No. 1, and then No. 3 in the same manner, finishing with a water-wash, the first portion of which is run into and forms part of the No. 3 solution. These different solutions are kept separate after percolation, and when charged with gold are subjected by themselves to the precipitating process. In some works sumps are used as reservoirs, and the solution is pumped direct from them on to the ore; but space permitting, it is considered better practice to have reservoirs for each solution above the percolation vats, from which the flow can be more easily regulated." For the purpose of bringing weak solutions up to a certain standard, it is advisable to use a very strong solution, of which enough is added to bring the weak solution up to the required strength. This method has, to a great extent, taken the place of the old method of using solid cyanide to bring weak solutions up to high standards. The strength of the cyanide solutions, which it is of great economical importance to determine, is tested according to Liebig's method by means of a one-tenth standard solution of nitrate of silver, which is made by dissolving 17 grams of pure nitrate of silver in 1 litre (1000 cc.) of distilled water. Liebig's method is based on the fact that silver cyanide is soluble in excess of potassium cyanide, with formation of a double cyanide of silver and potassium.

$$\underset{\text{(Potassic cyanide.)}}{KCy} + \underset{\text{(Argentic nitrate.)}}{AgNO_3} = \underset{\text{(Argentic cyanide.)}}{AgCy} + \underset{\text{(Potassic nitrate.)}}{KNO_3}$$

$$\underset{\text{(Argentic cyanide.)}}{AgCy} + \underset{\text{(Potassic cyanide.)}}{KCy} = \underset{\text{(Argentic potassic cyanide.)}}{KAgCy_2}$$

As soon as the whole of the cyanide has been converted into a soluble silver salt, an additional drop of silver nitrate will produce a permanent precipitate of the insoluble simple cyanide of silver:—

$$\underset{\text{(Argentic-potassic cyanide.)}}{KAgCy_2} + \underset{\text{(Argentic nitrate.)}}{AgNO_3} = \underset{\text{(Potassic nitrate.)}}{KNO} + \underset{\text{(Argentic cyanide.)}}{AgCy}$$

A measured portion of the perfectly clear cyanide solution which is to be tested is taken; if necessary, some distilled water is added, and the standard silver solution is gradually added from a graduated burette, until a permanent white cloud is formed. As each cubic centimetre of the silver solution is equal to 0·013 grams of potassium cyanide, by multiplying the number of cubic centimetres consumed by 0·013, the amount of cyanide in the solution tested is found in grams, from which the percentage can easily be calculated. A convenient silver solution for the purpose of analysing cyanide solutions is one of such strength that every cubic centimetre, added to 10 cubic centimetres of the solution which is to be tested, corresponds with 1 per cent. pure cyanide of potassium. "The cyanide solutions are apt to form, by continued exposure to the air, carbonate of ammonia; and as this salt interferes very seriously with the determination of the cyanide, it is well to add a few drops of solution of iodide of potassium, which forms a pale-yellow cloud insoluble in ammonia, which indicates completion of the reaction." (MacArthur). The mode of analysis, as described above, calculates the amount of cyanide of potassium in a solution by ascertaining its contents of cyanogen. If the cyanogen is partly combined with sodium instead of potassium, the percentage of cyanide appears in the analysis higher than it really is; the value of commercial cyanide of potassium should, therefore, be ascertained by determining its contents of sodium, if any, as it is possible, by manufacturing a mixture of cyanide of potassium and cyanide of sodium, to produce cyanide, which according to the ordinary method of estimation, contains apparently more than 100 per cent. of potassium cyanide. The analysis of cyanide solutions for gold and silver will be described in the chapter on laboratory work.

The cyanide usually employed for ore extraction is of two classes, one of which, manufactured in Scotland, contains from 70 to 80 per cent. of pure potassic cyanide; the other is manufactured in Germany, and contains upwards of 98 per cent. The latter grade is preferable, because it contains no carbide of iron, the presence of which in the former not only involves periodical cleaning out of the dissolving tank, but also is liable to precipitate gold should any of it come in contact with gold cyanide solution. The price of the best quality of cyanide of potassium, guaranteed to contain upwards of 98 per cent. cyanide, is at present 50 cents per lb. in the United States, delivered at seaports.

D.—Treatment of the Gold Solution (Recovery of the Bullion).

All methods of treating ores, as described, yield solutions containing more or less gold, and more or less cyanide of potassium. The next step is to recover the gold and silver. The chief method for that end consists in their precipitation by means of finely-divided zinc; it forms one of the patent claims of MacArthur and Forrest, and is generally in use. Another method is that of B. C. Molloy, of Johannesburg, who decomposes the cyanide solution of gold by means of an alkali metal, and amalgamates the bullion thus liberated; cyanide of potassium is regenerated by this process. The Molloy process has been in use on a small scale in South Africa, but has apparently gone into disuse again, for the official list of the Chamber of Mines of Johannesburg for March does not return any gold as extracted by that process, as had been the case in former months. Other process for bullion precipitation are:—The Siemens and Halske process of precipitating the noble metals by electrolysis on lead sheets, which method is in use at the Worcester Works in Johannesburg; the Pielsticker process of using electrolysis, constantly applied to the circulating solution; the Moldenhauer process of precipitation by means of aluminium, and the Johnston process of using charcoal as reducing agent. No information is available on the technical application of the three processes last-named.

(a) Bullion Precipitation by Zinc.—The solution from the percolation vats, or from the filter appliances if the agitation process is used, are run through boxes which are divided into chambers with double partitions. The first partition does not reach to the bottom of the box, the next one not quite to the top, and so on; they compel the solution to enter each chamber from below, and pass through a perforated bottom, on which the finely divided zinc is placed. After passing through the zinc the solution leaves the chamber at its top; then it descends between the double partition to the space below the perforated bottom of the succeeding chamber, where it undergoes the same treatment, and so forth in all successive ones. "This arrangement has been adopted because the gold is precipitated on the zinc in a state of fine division, and would, if deposited on the upper surface, prevent the further flow of the solution; but being deposited on the under surface, the gold precipitate falls off, and leaves the passage clear. Each precipitating box may contain 10 to 12 double chambers, and no matter how rich the solution is at the inflow, it should not contain more than a few grains per ton at the outflow." In some works the zinc boxes are up to 40 feet long. There is, however, no advantage in going beyond a limited number of chambers, as precipitation of the metals takes place chiefly in the first few compartments of the box.

I give here Mr. J. S. MacArthur's description of his construction of filter boxes, and the mode of working them, which is used by the MacArthur-Forrest patentees in South Africa—"The gold precipitate falls through the gauze into a chamber which communicates with an enclosed launder or gutter. From day to day fresh zinc is added, always adding it in the last chamber, and bringing the partly consumed zinc up a step, so that the first chamber contains zinc half consumed and rich in gold, while the last chamber contains fresh zinc containing no gold. At intervals of about two weeks there is a clean up, and the gold is collected by stirring the zinc so as to cause the gold precipitate to fall off. When this is done the stopper is raised and the gold precipitates fall through the opening into the launder. When this has been completed for each chamber, the launder is discharged through the opening." The precipitation boxes are usually made of wood, and although I have been well satisfied with such material (kauri-pine in New Zealand), I substituted it in California by steel, which I found in every respect an excellent material for the purpose. I could not ascertain any increased loss of cyanide by the use of iron as box material; the galvanic action of iron and zinc in contact on the cyanide seems by some writers overrated. Of this apparatus, which is based on the same principle, but which in its construction is simpler than the one described, I give the appended description. The total length of the apparatus is 9 feet, the size of the chambers is 9 inches by 9 inches by 14 inches deep; the distance of the partitions between each chamber is 1 inch. The perforated and movable false bottom of each chamber is of steel, which is an advantage over wire sieve bottoms, which easily become clogged by bullion The real bottom of each chamber has a faucet of 1 inch diameter, which discharges the liquid and the finely-divided bullion into a tank below the apparatus, from where, after settling (under addition of some alum, if saving of time is an object), it is transferred to a vacuum filter, as described farther on.

"The zinc used for precipitation purposes should be the best quality found in commerce, and should not contain arsenic or antimony; a small percentage of lead, however, does no harm, but rather tends to promote rapid action by forming a voltaic couple with the zinc" (MacArthur). The metal is preferably used as shavings, or filiform, as these forms give in practice the most surface for the least weight, and do not pass readily through a sieve, whereas the gold, which is precipitated as a fine powder, does. Shavings have the advantage of not forming lumps so easily in the precipitation boxes as filiform zinc; the latter has, however, the greater advantage of being cheaper in its preparation, and no remelting of the commercial zinc is required. It is prepared by cutting sheet zinc into discs, a number of which are placed together and turned on a lathe with an ordinary chisel. The zinc linings of the cyanide packing-cases, for which there is no market, may be turned to account in that way.

(To be continued.)

VARIATIONS IN THE PRICE OF TIN. — The following tabular form shows the variations in the price of tin during the past 33 years:—

FOR METALLIC TIN.

Years.	Price per ton.	
1833	£70	Four years' average. £81 5s.
1834	70	
1835	85	
1836	100	

For the same four years, average for black tin.....£60 15s.

FOR BLACK TIN, OR TIN ORE.

1837	£42 2 6	
1838	38 14 4	Average of five years, £45 18s. 6d.
1839	43 19 0	
1840	50 14 6	
1841	54 2 0	
1842	35 18 0	
1843	36 2 0	
1844	41 18 9	£43 4s. 3d.
1845	51 10 9	
1846	50 12 0	
1847	46 10 6	
1848	42 12 0	
1849	44 17 6	£45 3s. 10d.
1850	45 0 0	
1851	46 17 6	
1852	53 7 8	
1853	67 2 9	
1854	67 0 9	£67 0s. 6d.
1855	68 6 3	
1856	79 5 0	
1857	72 13 6	
1858	66 10 0	
1859	75 16 0	£71 0s. 0d.
1860	70 15 0	
1861	69 5 0	
1862	65 3 9	Four years' average, £62 10s. 0d.
1863	66 6 3	
1864	63 10 2	
1865	54 18 6	

IMPROVEMENTS IN GOLD EXTRACTION.*

By H. LIVINGSTONE SULMAN.

THIS paper deals with the results of experiments on three problems in gold extraction, viz.: an improved solvent for refractory ores; a new method of precipitating gold from potassic cyanide; and the leaching of slimes.

An Improved Solvent.—The solution used by Dr. Teed and the author consists in addition to an ordinary cyanide solution of a small proportion of one of the haloid compounds of cyanogen, viz.: either the chloride, bromide, or iodide. The haloid compound may be added to the solution, or it may be produced *in situ*.

Cyanide of potassium itself, as is well-known, is incapable of dissolving gold, Elsner being one of the first to point out that the presence of oxygen was essential. This fact may be expressed by the well-known equation:—

$$4\,KCy + Au_2 + H_2O + O = 2\,(K\,Au\,Cy_2) + 2\,KHO.$$

Solution of gold from ores is dependent, therefore, upon such supplies of oxygen as may be derived (1) from air previously dissolved in the liquors; (2) that entangled between the grains of ore or tailings; or (3) dissolved by the surface layers of liquid, and slowly diffused throughout the mass during leaching. The difficulty experienced in leaching rich pyritic concentrates by the ordinary cyanide method is partly due to the comparatively rapid exhaustion of the oxygen supply. That slowness in cyanide action has been due to the difficulty in bringing dissolved oxygen, atom by atom, to bear upon the molecular point of attack, has long been recognised, and nearly all improvements upon the cyanide process have consisted in the addition of various oxidising agents to the cyanide liquors. But although the direct destruction of potassic cyanide in dilute solutions by atmospheric oxidation is comparatively slow, and may be disregarded as a serious element of cyanogen loss, it is by no means so certain that a powerful oxidising agent in solution is equally innocuous; it seems that the air supply is, perhaps, the safest and cheapest source. The fatal defects in all oxidation cyanide processes are (1) the oxidation of iron and other base sulphides, with consequent direct destruction of cyanide; and (2) the production of caustic potash which forms soluble compounds with certain sulphides that then act as cyanide destroyers.

The oxygenation cyanide process, though successful on ores adapted to it, has failed in others. It is, as a rule, inapplicable in the following instances:—

1. To ores containing coarse gold.
2. To rich pyritous ores and concentrates.
3. To ores limited by the disturbing effect of copper, arsenical, antimonial, manganiferous, and certain other compounds.

The alleged "selective action" of very dilute cyanide solutions for gold in preference to copper-containing minerals has in some cases rendered the cyanide method available; but when these substances occur in large quantity they are usually fatal to the process. On these last classes of ores the author has made quick and successful extractions by his solvent, whilst on less refractory ores increased rapidity of extraction, with in general a less cost in solvent, has been obtained. These results are mainly due (1) to the fact of having potential cyanogen always at hand, and (2) to the avoidance of production of caustic potash. To produce aurous cyanide, a potassium atom must be eliminated from potassic cyanide, and this may be done by a halogen, thus:—

$$(1.)\ 2\,KCy + Au + Cl = K\,Au\,Cy_2 + KCl.$$

There is no hydrolysis here, and this may be proved by using the haloid cyanogen compound instead of the element:—

$$(2.)\ Cy\,Cl + 3\,K\,Cy + Au_2 = 2\,(K\,Au\,Cy_2) + K\,Cl.$$

In the latter case only half the haloid element necessary in (1) is required. A series of reactions between various sulphides and caustic potash are shown, in nearly all of which caustic alkali plays a prominent part in accomplishing the destruction of cyanide. For the solution of every atom of gold in a complex refractory ore by the MacArthur-Forrest system, one, or even several molecules of cyanide may be destroyed by means of the "cyanicide" generated. Many of these bodies being powerful oxygen absorbents, have a further retarding action upon the solution of gold in cyanide, by intercepting the necessary oxygen supply. The whole tendency of oxygen to produce "cyanicides" in the treatment of complex ores is so marked, as not only to explain the failure of the MacArthur-Forrest process in such cases, but also to justify the addition of some deoxidant in the author's process. By the use of the halo-cyanogen solvent, on the contrary, the potential store of the cyanogen radicle is always molecularly present in the required proportions, and the production of injurious "cyanicides" is avoided.

According to equation (1) this might be done by simple chlorination or bromination of the cyanide liquor within the limits defined by the equation. For several reasons the author prefers to manufacture the actual haloid compound, and to add it in the proper small proportions to the cyanide solution to be used. Some of these reasons are:—

1.—Complete and economical extractions have been made on complex and refractory ores.

2.—An economy of half the haloid element is effected.

3.—The solid haloid compound is easily exported.

4.—The addition of the already formed haloid cyanogen compound to a solution of potassic cyanide appears to yield a better solvent than is obtained by forming it *in situ*.

It must be at once noted that the haloid cyanogen compounds are not, in themselves, solvents of gold or silver. They require a basis of the soluble simple cyanide to yield a solvent. Of all the haloid compounds of cyanogen, the bromide is the most suitable. It is a white crystalline salt-like body, solid within ordinary ranges of temperature, though slowly volatile on exposure; it appears not to be very poisonous, and the inhalation of its vapour seems to have no ill effects. The bromide as prepared by the author by the action of bromine upon potassium cyanide, is an anhydrous product, and may be preserved unaltered for indefinite periods when stored in well-closed vessels, and can be exported in tins varnished inside with paraffin wax.

The plant and preliminary treatment of the ore are the same as required for the ordinary cyanide process. A dilute solution of potassium cyanide is employed, and to the contents of the storage tank an addition of the solid bromide of cyanogen is made in proportion, not exceeding, chemically, one molecule of the bromide to three of cyanide, or, in parts by weight about one to two. This is a maximum proportion never to be exceeded, and it is preferable to use less of the bromide than is required for chemical interaction with the whole of the cyanide present, for the simple reason that the whole of the cyanide is not required to be used up in the gold extraction; in other words, the amount of cyanogen bromide is approportioned to the work to be done. The maximum strength of the bromi-cyanogen leaching liquor must not be passed; if the strength of ·6 per cent. K Cy + ·3 Br Cy be exceeded there is a tendency to decomposition of the joint solvent with liberation of brown paracyanogen. Such a strength would never be necessary for a solvent, and the more dilute the liquors the greater apparently is their stability. The tendency of the latest work has been in favour of the use of weak solutions.

Generally speaking, a leaching of 24 hours has proved sufficient even for large masses of complex pyritic concentrates, and in every case 48 hours has shown the maximum extraction possible. In many cases a few hours has effected good commercial extraction. The consumption of cyanide is in nearly all cases normal. In parallel tests with the ordinary cyanide process, extractions by it were always inferior to those obtained by the author's method in equal times, the advantage in an extended series of experiments by the author and Dr. Teed, giving an average of 25 per cent. better.

Robinson Tailings.—Originally assaying 7 dwts. 12 grains of gold, 2 dwts. 7 grains silver. These were treated with ·3 per cent. cyanide solution, and one of the author's solvent ·2 per cent. potassium cyanide, and ·12 per cent. Br Cy. The leachings were allowed to stand over night, and the assay of the tailings after treatment showed, in the case of the plain cyanide, gold 2 dwts. 11 grains, silver 1 dwt. In the case of the author's solvent 1 dwt. 10 grains gold, silver 1 dwt. In this case, however, whilst the cyanide extraction was still incomplete, the practical limit of extraction had probably been reached by the author's solvent some time previously.

It is to be borne in mind, however, that the author claims for his process its special applicability to pyrites and refractory ores.

Pestarena pyrites concentrates, of 18 dwts. 18 grains, leached for 15 hours with ·5 per cent. potassium cyanide alone, yielded 34 per cent. extraction, whereas by adding thereto ·25 per cent. of Br Cy, in a parallel experiment, 91 per cent. of the gold was obtained in the same time.

Half a ton of Australian pyritic concentrates (from the Charters Towers fields) was submitted to parallel tests with the new solvent and ordinary cyanide. The ores had already undergone amalgamation treatment in Berdan pans, the original assay of the finely-ground product showing 3 ounces 15 dwts. of gold. Using the new solvent (of a strength of ·5 per cent potassium cyanide with ·25 per cent. Br Cy) in five hours the gold contents had been reduced to one-half, and in nine hours only 3 dwts. remained in the exhausted tailings. With cyanide alone of ·5 per cent., the leaching of a similar bulk of ore was continued for six days, and the liquors were again and again renewed, owing to the rapid consumption of the cyanide. At the end of the week the assay of the tailings showed that 8 dwts. still continued in them. The author thus obtained, with a much smaller expenditure of solvent, a far better extraction in nine hours than the MacArthur-Forrest process achieved in six days.

Hungarian Pyrites Concentrates.—These had been partially roasted, but still contained about 70 per cent of mixed sulphures (and from 2 per cent. to 3 per cent. of copper), assaying 11 dwts. of gold; 20 hours' leaching with the new solvent, on a basis of ½ per cent. Br Cy, reduced the tailings to 3 dwts., while a parallel test with plain cyanide afforded practically no reduction. A well-roasted sample of similar ore gave an original assay value of 23 dwts. On treatment with the author's solvent it was reduced in 24 hours to 1 dwt. 23 grains, whilst by the MacArthur-Forrest process 12 dwts. still remained in after 36 hours. This experiment was also on a scale of half a ton.

A shaking test upon a sample of Canadian arsenical pyrites was made with 0·3 per cent. K Cy, and 0·3 per cent. K Cy + 0·12 per cent. Br Cy. Half an hour's agitation of the ore (which originally assayed 7 dwts. of gold) yielded, with cyanide alone, tailings assaying 3 dwts. 22 grains, and with the new solvent 1 dwt. 20 grains of gold, or extractions of 44 per cent, and 74 per cent. respectively.

Upon a rich Coolgardie ore, assaying 8 ounces 4 dwts. gold, and 1 ounce 1 dwt. 14 grains silver, parallel tests were made: 15 hours' leaching with plain 0·3 per cent. cyanide yielded tailings of a value of 4 ounces 1 dwt. 1 grain gold, 18 dwts. 7 grains silver, or 50·06 per cent. extraction; with a similar leaching period, but using 0·125 per cent. Br Cy in addition to the K Cy, the tailings only assayed 1 ounce 6 dwts. 3 grains gold, and 7 dwts. 20 grains silver. The gold left behind in the second case was nearly all "coarse," and the bulk of it could be panned out; this would have been removed in the ordinary course by previous amalgamation on the plates. The percentage of extraction by the author's solvent was 84·1 per cent.

An Indian pyritical ore, assaying per ton, gold 10 dwts. 12 grains, was submitted to treatment by K Cy solution of ·2 per cent. strength, and also to one of ·2 per cent. K Cy with ·08 per cent. Br Cy. After 12 hours' leaching the tailings from the first operation gave 9 dwts. 18 grains, whilst in the second case the assay showed only 8 grains, or a reduction of 96 per cent.

In the following trials no parallel tests with the MacArthur solvent were made.

Coolgardie ore, consisting of quartz with limonite, of a value of 17 dwts., leached for 15 hours with a ·3 per cent. K Cy and ·18 of Br, yielded tailings assaying 14 grains, or an extraction of 96 per cent.

M. Goppner informs us that by using the bromo cyanogen solvent he has successfully extracted the gold from a crushed sample of antimony sulphide.

Norwegian Arsenical Pyrites.—These were concentrates of an assay value of 8 ounces 11 dwts. On leaching for 24 hours with a ·5 per cent. solution of the new solvent, they were reduced to 1½ ounce, or an extraction of 82·3 per cent. The gold still remaining was mainly imprisoned in the larger fragments of pyrites, and these on re-crushing were again successfully extracted.

Australian pyrites tailings, containing copper and and antimony; original assay 10 dwts. 12 grains gold; on being leached for 24 hours with ·45 per cent. K Cy, ·2 per cent. Br Cy yielded an extraction of 90·3 per cent.

South American tailings, containing much pyrites and a little galena, very coarsely crushed; original assay 6 dwts. 13 grains of gold, 7 dwts. 20 grains of silver; 1 cwt. was leached with ·1 per cent. K Cy and ·05 per cent. Br Cy. After 5 hours' extraction the tailings gave 3 dwts. 6 grains gold, and 1 dwt. 23 grains silver. On leaving till next morning (19 hours in all), the tailings were reduced to 1 dwt. 23 grains silver, and 1 dwt. 23 grains of gold.

These and several of the preceding tests show comparatively rapid reduction of the silver, but in the next case, where the silver sulphide was evidently in a more refractory condition, the bulk of the gold was removed, whilst the silver was only reduced by a third.

New Zealand Silver and Gold Ore.—The original assay of this ore was, gold 16 dwts., silver 36 ounces. A 24 hours' leach with ·3 per cent, bromo-cyanogen solvent reduced the ore to 1 dwt. 4 grains gold, and 26½ ounces of silver per ton.

Another Australian ore, which has given a great deal of trouble up to the present, and upon which the MacArthur-Forrest process has been tried unavailingly, has been successfully dealt with by the author. It contained from 4 to 5 per cent. of copper and a considerable amount of antimony. The concentrates from this ore assayed 1 ounce 6 dwts. 20 grains of gold, and after 15 hours' treatment with 5 per cent. K Cy, and ·25 per cent. Br Cy, yielded tailings of only 1 dwt. 4 grains gold per ton.

A Mexican (Colorado) ore, containing 14½ dwts. per ton of gold was brought for treatment as a refractory sample of tailings, from which the Cassell Company's process had failed to attain an extraction of 60 per cent. Three trials were made, averaging a reduction of the gold to 14 grains, or an extraction of 96 per cent. This was attained with a consumption of about 3 lbs. of cyanide per ton.

Gold Precipitation from Cyanide Solutions.—Various metals and alloys have been tried with the idea of superseding zinc as a precipitant, with more or less success—generally with less; but by employing extremely finely divided metal added in the form of a suspension or emulsion to the gold-bearing liquors, a return can be made with greatly enhanced results to the use of zinc, which, after all, is the cheapest of the metals—electro-positive—to gold in a cyanide solution. The requirements to be demanded of a metallic precipitant are:—

1. The extremest extension of surface.
2. Cheapness.
3. Capability of automatic application.
4. Rapidity and completeness of deposition.
5. Easy adaptability of the produced precipitate to collection and smelting.

All these conditions are amply fulfilled by the product known as zinc fume, when treated and applied in the way to be described. It is a commercial product produced in great quantity during the preparation of the metal from its ores by the usual distillation process, being the condensed metallic vapour in a state of such extreme fineness that, as a rule, 95 per cent., or even more, will freely pass a mesh of 200 to the lineal inch. It is, in fact, an impalpable metallic flour, and viewed under the microscope is seen to consist of spheres more or less coated with oxide. This can be removed by treatment with a dilute solution of ammonia or any other suitable solvent for zinc oxide; on stirring the deposited fume with water, a metallic emulsion is produced, which exhibits remarkable gold precipitating power. A small portion of this preparation, agitated with a dilute solution of auro-potassic cyanide permeates the whole volume of liquor, rendering it slightly and uniformly cloudy. The suspended metallic particles partly dissolve, partly act as nuclei, and almost immediately determine the precipitation of the gold. In a minute or two gold films form about these minute nuclei, and a precipitate begins to agglomerate and fall out, so that within five minutes the whole of the precious metal is collected at the bottom of the vessel as a black powder of very granular nature. Zinc fume cannot be used in a layer for percolation, but employed as an emulsion it becomes for all practical purposes a direct precipitant. Zinc fume can be obtained at a price of 1½d. to 2½d. per lb.; the amount of sal-ammoniac or other solvent required to render it active is under ½d. per lb. of precipitant material. With an expenditure of zinc fume never exceeding ½ lb. per ton of ore experiments on considerable volumes of gold solution have given precipitates which seldom contained below 97 to 98 per cent. of the gold originally present in the liquor. When the solutions are rich in metal (or over 6 dwts. per ton), the addition of zinc fume of from three to four times the weight of gold present was sufficient to completely precipitate the latter. Very dilute solutions require rather more. Two experiments are quoted as instances:—

(a) A solution containing 2 dwts. of gold per ton in 0·2 per cent. cyanide was taken as representing an average state of affairs when the liquors obtained after undergoing precipitation in the MacArthur-Forrest zinc boxes are returned to the storage tank.

(b) A solution containing 5 dwts. gold in 0·04 per cent. cyanide, representing liquors which would be derived from tailings treated by the Siemens-Halske process.

Both were treated with clean fume at the rate of ½ lb. per ton of liquor, and the precipitate was collected after 15 minutes' standing; upon washing with dilute acid to remove any excess of zinc, the residuum was cupelled, and yielded buttons of (a) 98 per cent, (b) 96 per cent. of the original gold assay value of the liquors. The cost of material was thus about 1d. per ton, and the precipitation almost absolute; the loss experienced falling within limits of the assay. The nature of the precipitated gold is quite different from that produced in the zinc boxes—it is a heavy blackish granular agglomerate, and though shaken up with liquor repeatedly, it falls again completely in a few seconds, presenting a great contrast to the ordinary gold slimes, which, upon collection and washing, yield suspensions requiring hours, even days, to settle. Further, it contains much less free zinc, and no large fragments of that metal.

With strong gold solution as obtained by the action of ·3 per cent. cyanide solution or tailings, zinc fume to the weight of three times the amount of gold present gave gold precipitates of over 600 fine, which by washing with dilute sulphuric acid produced powder 900 fine.

The last point in favour of the zinc fume precipitant, is that it is capable of automatic application to the continuous flow of liquor from the leaching tanks. By means of a small flushing tank with a ball-float attachment, the small quantity of emulsified fume necessary for every two or three gallons of solution is automatically measured and mixed with the solution in strict proportion to the rate of flow.

Zinc fume is thus a precipitant, cheaper in actual material used and labour required, and more convenient in the form of gold produced than that which is afforded by the zinc shavings box, besides giving practically perfect precipitation.

Leaching of Slimes.—It is well known that 30 per cent. of the ore crushed on the Rand is obtained in the form of slimes, from which, up to the present, it has been found impossible to extract the gold, owing entirely to the impossibility of leaching these products. The slime difficulty is well exemplified by the care taken to separate these products as completely as possible from the tailings during the collection of the latter for leaching.

It is well known that slimes pack into a dense impenetrable mud when leaching by ordinary percolation methods is attempted. The author has found that by causing the formation of a uniform small amount of a coagulum throughout the rejected slime effluents, the whole of these, together with the minutest trace of "effluent" gold are precipitated with great rapidity, and that this precipitate is far more amenable to leaching than the original slimes. The most efficacious coagulating agent is produced by the addition of a soluble metallic or alkaline earth salt to a dilute solution of soap. By adding a little milk of lime to a dilute soap solution containing suspended slimes, the small amount of sticky and contractable calcium-oleate and stearate formed throughout the mass, instantaneously sweeps together, and binds into granular flocky masses the most finely divided particles till then in suspension. The physical condition of the precipitate produced by this coagulation method is entirely altered, the nature of the deposit being very different from that of ordinary slimes. The particles have become far more open and granular, and percolation, before impossible, has now become practicable. The amount of soap required is small, being only from 2 to 5 lbs. per ton of suspended slimes, reckoned as dry material. Thus it is only necessary to collect in a shallow tank a day's or half a day's run of the effluent slimes suspended in a very dilute soap solution, and to add thereto a small amount of milk of lime in order to effect the complete precipitation of all slimes and suspended matter (however finely divided) into one uniform precipitate in a leachable condition, whilst the clear effluent contains neither soap, slime, nor any trace of gold.

Experiments upon a scale of about 2 cwts. in wooden vats have shown that percolation is sufficiently rapid through a layer of from 1 foot to 18 inches of precipitate. Only experiments on a large scale can settle whether packing would occur with such a depth as six feet, but excellent results have been obtained on an experimental scale by upward leaching under a head of two to three feet.

In a very untractable ore from an Australian mine, a depth of six inches of liquor was passed through in 2½ hours, and extraction by means of 0·3 per cent. cyanide after treatment by soap coagulation reached 84·6 per cent. of the original gold contents, whereas it was impossible to obtain results upon the untreated slime owing to its impermeability.

The small quantity of calcium-oleate produced throughout the mass of the slimes, seems in no way to interfere with the solvent action of the cyanide solution upon their gold contents. It is impossible to say whether this be due to the produced coagulum of calcium-oleate being a network rather than a continuous envelope over the slime particles, or whether osmosis of the cyanide solution takes place through the enveloping coagulum; the fact remains that dilute cyanide solution will remove from such a precipitate by direct leaching 90 per cent. of the assay value of the original slimes.

From the very fact of the highly divided nature of the slimes, their gold contents are exceptionally free, and very susceptible to the solvent action of gold leaching solutions. Slimes are, therefore, capable of extraction in a comparatively short time by means of a solution more dilute than can be conveniently applied in the case of ordinary tailings.

As regards the quantity of lime necessary to precipitate the slimes from an effluent which had been treated at an earlier stage with soap, 1 cwt. of the latter (containing 60 per cent fatty acids) requires just 10 lbs. of lime, reckoned at 80 per cent., to effect this, the cost of which in England is roughly about 1d.

By the aid of the soap method of precipitation, extraction of the slimes by decantation may be effected in various ways, such as (1) the addition of soap solution to the whole bulk of ore and slime milling water in the battery stamps, the usual separation of the tailings, the precipitation of the effluent by adding milk of lime, and the treatment of the precipitate (after deposition, and the removal of the clear effluent), by digestion with a ·50 per cent. and ·025 per cent. solution of potassium cyanide, until the solution of the gold is judged to be complete. The separation of the gold-bearing liquor, and the subsequent washings with still weaker liquors, or water, are effected by decantation.

2. An alternative method. No previous treatment of the milling waters is undertaken, nor is soap added to the pulps issuing from the battery, but after separation of the tailings in the ordinary way the spitzkasten effluent is collected in a tank, and a small addition of soda ash or caustic soda is there made, in order to render insoluble any dissolved lime or iron salts. A solution of soap is mixed with the liquor in the proportion of 2 to 3 lbs. per ton of dry slimes present, and the precipitation of the whole is then effected by a small quantity of milk of lime. The subsequent treatment of the precipitate by dilute cyanide and decantation is the same as in the first method.

* Abstract of paper read before the Institution of Mining and Metallurgy.

3. The slimes are allowed to deposit from the effluent liquor by gravitation in the usual way, they are then treated with dilute cyanide direct, or they may be subjected if necessary to a previous soda treatment. As decantation of the gold-bearing liquor from the exhausted slimes would be impossible in the ordinary way, the requisite small quantity of soap solution is in this case added when the extraction of the gold by the cyanide is complete, and the final precipitation of the suspended (but depleted) slimes is effected by the admixture of milk of lime, the clear liquor being decanted off in a few minutes as usual, and run through the gold recovery plant.

In all cases the expenditure of from 3 to 5 lbs. of soap per ton of dry slimes is amply sufficient to effect their rapid precipitation by any of the latter methods; and taking the cost of soap at 2d. per lb., and reckoning a slime production at 30 per cent. of the original ore, this gives a maximum cost of:—

Soda, ash, and lime	2d.
Labour	1d.
Soap, 4 lbs. at 2d.	8d.
Total	10d. (*sic!*)

30 per cent. of which is 3d., equal to cost of slime precipitation per ton of original ore.

The serious difficulty which has hitherto been encountered in treating slimes by decantation—namely, that of recovering gold from highly dilute solutions—has been overcome by the method of zinc fume precipitation already described.

MODERN ENGINEERING HELIOGRAPHIC PRINTS.

EXHIBIT OF EXAMPLES AT THE WOOD MEMORIAL HALL.

SINCE Mr. B. H. Thwaite presented his memoir on heliography to the Institution of Civil Engineers, some nine years ago, the development of this branch of photography amongst engineers has been almost phenomenal, and if the time and money saved by the accuracy and rapidity of this actinic copying of engineering drawings could be calculated, it would be found to be colossal. To illustrate Mr. Thwaite's paper, read at the recent meeting of the North of England Institute of Mining and Mechanical Engineers, he has had the assistance of eminent engineering and photographic stationers' manufacturers throughout the country, in order to show the permanency, the fidelity, and the clearness of reproduction. Thanks to the following gentlemen and firms, viz.—W. F. Stanley, London; Bemrose and Sons (Limited), Derby; Richard Keen, Derby; Thwaites, Tozer, and Co. (Limited), London; Marion and Co., London; Smith and Co., Manchester; Eastmans Photographic Materials Company (Limited), London; J. R. Gotz, London; and Mr. Barry, Liverpool — very beautiful examples of heliography by the cyanide, the ferro-prussiate, the ferro-gallic, and the platinotype processes are shown. A very fine and interesting collection of every-day examples of heliography as carried on under the supervision of Mr. Shawcross, of the Waterworks Engineer's Department, of Liverpool, is exhibited. This collection, lent by Mr. Parry, C.E., Waterworks Engineer, Liverpool, clearly proves the permancy of the helio, cyanide, and ferro-prussiate prints, a qualification further proved by drawings from Lesseps's *ateliers*, and by other French and Spanish examples nearly 20 years old. Some of the helios shown were prepared by Mr. Shawcross seven years ago, as well as the tracings from which they have prepared the helios. The tracings, made of *papier vegetal*, and the helios, are both in an excellent state of preservation, although they have been in use all through the seven years. By comparing the tracings with the helios, the former which shows a patch, proves the readiness with which erasures and imperfections can be remedied.

The large helio cartoon, showing the dam of the Vyrnwy Waterworks, illustrates how a very large scale drawing can be made by first preparing the details to one large scale (none of the drawings being larger than double-elephant, or drawing-board size), then taking multiple copies, and combining them up into a a compact whole. The helio cartoon shows an entire elevation to a large scale, made up in this way in a most rapid and convenient manner. The only part drawn in by hand is the varying rock surface of the ground. The mounted helios will be shown to be quite as permanent and as effective as ordinary drawings. There are helio drawings to show the many and conspicuous advantages of the heliographic procedure in every-day engineering practice. Other copies illustrate the original experiments of Mr. Shawcross in converting the pellet cyanotype—blue line effect—into darker blue or black. There are interesting exhibits of the development of the ferro-gallic—black line on white ground—process, of which Mr. Shawcross was the original inventor, and which has been brought to a high state of perfection, as numerous examples from well-known firms prove. Other examples of a black line in white procedure, with merely a water developer, are shown by Messrs. Allott, Jones, and Co., of Liverpool; Messrs. Haldane and Messrs. Smith, of Manchester; Messrs. Gotz, Marion, and W. F. Stanley, of London, and Messrs. Bemrose, of Derby; and a magnificent series of platinotype prints are exhibited by Mr. Richard Keen, of Derby.

Examples of suitable tracing papers, printing frames, and other requirements of a heliographic equipment are shown, and Mr. Thwaite includes helios showing the methods of shading, colouring, and characteristic methods of colouring constructional drawings that have to be heliographed. The exhibition in the Wood Memorial Hall, Newcastle-upon-Tyne, is the first of its kind, and should tend to the popularisation of engineering heliography as an aid to engineering construction. The exhibition will be kept open for some time, and engineers are invited to inspect the various heliographic plans, &c.

A NEW BROMINE PROCESS FOR THE EXTRACTION OF GOLD.—A new process of extracting gold from auriferous ores, by means of bromine, is reported elaborated by C. Lorsen. The difficulty hitherto associated with the use of bromine for this purpose has been the obstacle in the way of its recovery, and the process, therefore, has been too expensive for practical use, says the *Mining and Scientific Press*. Herr Lorsen, however, now electrolyses a solution of potassium bromide, and obtains an alkaline solution which contains hypobromide and bromate, which is capable of dissolving gold. The ore is treated with excess of this solution by rotating cylinders; the solution is then filtered, the gold precipitated by passage over a mixture of iron and coal, and the solution, which now mainly contains potassium bromide, is electrolysed once more, and again used for extraction.

THE INSTITUTION OF MINING AND METALLURGY.—The adjourned fifth ordinary meeting of the fourth session of this Institution will be held next Wednesday, in the Lecture Theatre of the Geological Museum, Jermyn-street, S.W., at eight o'clock. Agenda: 1. To continue the discussion on "Some Improvements in Gold Extraction," a paper read by Mr. H. Livingstone Sulman (member), on 20th February.—1. To receive the following papers:—"The Covadonga Manganese District and its Mines," by Mr. J. A. Jones (member). "The Manganese Deposits of Huelva," by Mr. Frank Johnson (member). "Notes on the Espiritu Santo Mine at Cana," by Mr. Ernest R. Woakes (member).

MEETINGS OF MINING COMPANIES.

MECHERNICH (RHENISH PRUSSIA) MINING COMPANY.

Annual meeting at Cologne.

THE annual meeting of shareholders in this company was held at Cologne, on February 21.

The CHAIRMAN said: The general director of our company, Mr. Hupertz, after many years of service, asked us in the summer of 1894, in consideration of his great age, to release him of his post. To our regret we could not refuse to accept the reason for this request. The newly-elected general director, Mr. Kreuser, entered upon his duties on October 1, 1894. We are sorry to say that the balance-sheet for 1894 shows a further decline of our undertaking. This, however, has not been caused by the management of our business; but, as already mentioned in former reports, by circumstances over which we have no control. There are at present no certain prospects for an early and substantial rise in the price of our principal products. On the other hand, no great reduction in the cost of production can be expected under present conditions. The reserve fund has been absorbed by the bad results of the last few years; and the present balance sheet still shows a considerable loss. This loss has to be made good, and the reserve fund must be restored according to the law of the State and to our own bye-laws. The considerable burdens which have been put upon our undertaking through the legislation for social reforms remain unaltered. Your administration cannot deny the fact that, considering the long continuous depression in the price of lead and silver, the mining property can no longer figure in our books with the same amount as it was properly entered when prices were much higher. With the general unfavourable state of trade, and the enormous fall in the price of all commodities, we fear that the different amounts, as at present put down in our balance-sheet, could never be realised again, and we, therefore, are obliged to propose to you a reduction of several items of our assets, as shown in the statement which has been put before you. All these circumstances require, consequently, a reduction of the company's capital. Your administration will, therefore, propose to you at the general meeting, which will follow directly after this annual meeting, to reduce the capital of the company by one-third, and to alter Sections 4 and 20 of our bye-laws accordingly. The statement, already mentioned, forms an opening balance, and shows the state of our affairs, if you agree to the reduction of the capital. It is hardly necessary to point out to you that in the new balance-sheet the reserve fund is restored, and there remains a further amount for a renovating and supplementing fund, which will very likely be required in a short time for large building alterations. We, therefore, ask you already now for authorisation to use this amount of 120,572·05 mks. for building purposes.

BALANCE SHEET.

Dr.	Marks.	Marks.
Mining property, 1893	2,357,569·63	
Reduction, 1894	13, 65·39	
	2,344,204·24	
Written off	200,204·24 —	2 144,0·0
Ground property, 1893	909,797·42	
Addition, 1894	1,922·32 —	911,719·74
Offices and workmen's dwellings, 1893	137,446	
Written off	3,749 —	183,697
Gasworks, 1893	231,495	
Written off	5,630 —	275,865
Smelting works, 1893	452,270	
Written off	9,045 —	443,225
Inn, hospital, and school for miners, 1893	222,382	
Written off	4,447 —	217,935
Wire tramway, 1893	96,761	
Written off	4,838 —	91,923
Railway property, 1893	544,913	
Written off	27,246 —	517,667
Machinery and utensils, 1893	999,209·55	
Addition	22,075·58	
	1,021,285·14	
Reduction	61,956·26	
	959,328·88	
Written off	46,285 68—	913 043·20
Debtors		644,495 14
Materials		426,742·14
Stocks of ores and metals		1,205,872·37
Cash, bills, and investments		1,549,446·37
Loss, 1894		1,452,884·92
		10,978 515·88
Cr.		
Capital		9,600,000
Creditors		586,802·24
Doubtful creditors		722·59
Fund for supporting officials and workmen		30,419
Reserve fund		760,572·05
		10,978,515·88

BALANCE-SHEET AFTER REDUCTION OF CAPITAL.

Dr.	Balance 1894.	Written off.	Present value.
Mining property	2,144,000	793,998	1 350,002
Ground property	911,719·74	291,719·74	620,000
Offices and workmen's dwellings	183,697	19,697	164,000
Gasworks	275,865	45,865	230,000
Smelting works	443,225	1 3,225	330,0 0
Inn, hospital, and school	217,935	37,935	1 0,000
Railway property	517, 67	157,567	360,000
Wire tramway	91,923	31,923	60,000
Machinery and utensils	913,043·20	231,043·20	682,000
Materials	426,742·14	24,042·14	40 ,700
Stock of ores and metal	1,205,872·37	—	1,205,872·37
Debtors	644,495·14	—	644,495 14
Cash, bills, and investments	1,549,446·37	—	1,549,446·37
	9,525,620·96	1,747,115·03	7,778,515·88
Cr.			
Capital	9,600,000		
Reduction	3,200,000	—	6,400,0 0
Creditors			586,802·24
Doubtful creditors			722·59
Fund for supporting officials and workmen			30,419
Reserve fund	760,572·05		
Taken out for special reserve fund	120,572·05 —		640,000
Special reserve fund for building purposes			120,572·05
			7,778,515·88

The MANAGING DIRECTOR said: From the foregoing report you will have seen that the results of last year were even worse than those of the year before. Whilst the balance-sheet of 1893 still showed a gross profit of 86,816·91 mks., that of 1894 gives a working loss of 1,014,600·72 mks., which, through the writing off required by law, is increased to 1,452,884·92 mks. The price of our principal products—lead and silver—continued to fall, as in the last few years, and reached the lowest point ever known. These prices did not cover the cost of production, on the contrary, fell a good deal short of the same and caused a great loss in realising our stock. In order to counterbalance this evil state of affairs we were obliged to curtail production, dismiss a number of workmen, and at last also to reduce wages. In spite of all this we were unable to prevent the bad results of the year. There were no abnormal fluctuations in the price of lead during last year. At the close of 1893 Spanish lead was quoted in London £9 10s. per ton; until June the price went continually down, and reached at last the lowest point, £9. After this it gradually rose to £10 2s. 6d., but declined once more, and stood at £9 11s. 3d. at the end of the year. The rise during the second half of the year was no doubt the consequence of the hopes raised by the American Tariff Bill, which became law in August, and by which the duty on lead was reduced from 2 to 1 cent per lb. However, with the bad state of business in America, and the low price of lead caused thereby, the importation of lead there can only in few cases have been profitable to European producers. This rise, brought about by false expectations, was, therefore, only of short duration. The London price of Spanish lead was in the different months—viz.:—

January	£9 7 5	July	£9 5
February	9 5 7	August	9 16 5
March	9 5 0	September	9 17 10
April	9 3 8	October	9 17 5
May	9 2 1	November	9 15 4
June	9 2 3	December	9 11 8

Average price for the year £9 9s. 6d., viz. 4s. 6d. per ton, or 2·32 per cent., lower than 1893, and £1 per ton, or 9·55 per cent., lower than 1892. Also the price of silver receded during the past year to a considerable extent, although not quite as much as in 1893. The price in London fell from 31½d. at the beginning of 1894, to 27½d. at the end of the year. In March, 1894, it reached 27d., the lowest point ever known. The average prices of bar silver for the different months were at the London market:—

	Pence.		Pence.
January	31⅜	July	28 11/16
February	29¼	August	29⅛
March	27 5/16	September	29 1/16
April	28 1/16	October	29⅛
May	28 11/16	November	29
June	28 11/16	December	27¼

Average price for the year, 28 15-16d., against 35⅝d. in 1893, and 39 13-16d. in 1892. We obtained the average price of 84·51 mks. per kilo., against 107·68 mks. in 1893, and 115·71 mks. in 1892. There is not the slightest doubt that with these prices all the German lead producers—not only the smelting works, but also the lead mines—work under great difficulties. In spite of repeated appeals to the Government, and of proposals for amending this state of affairs, we regret to say that we have had no intimation yet of the Government agreeing to the remedy, especially proposed for the Prussian smelting works—namely, the reduction of freight on the raw material used by these works, and on the transport of lead to foreign countries. The reduction of the freight on raw materials, especially on coals, coke, slag, iron, and limestone, would cause no greater falling off in receipt for the Prussian railways than is now brought about by the cessation, or restriction, in the working of the smelting works and mines. If the State railways would meet them in this way, the smelting works and mines would be able to reduce the cost of production to a great extent, and to compete again in the world's market with success. It is not only a question for the welfare of a few producers, but a question of existence of a once great and flourishing branch of industry on which many communities and families depend, whose sustenance must be of the highest interest to the Government. The German lead industry is dependent on export, but under the bad conditions of the last few years competition is the more difficult, as other countries are not burdened with such heavy social taxes, and can, therefore, work with much cheaper wages. Statistics prove best what I have said, and I, therefore, give you the following figures of export and import of lead for Germany:—

	Import. Tons.	Export. Tons.
1888	7,358	34,889
1889	9,527	32,793
1890	12,766	32,115
1891	17,624	24,973
1892	17,500	25,657
1893	23,856	23,944
1894	24,280	24,354

During these seven years the import has increased to three times the quantity, and export has decreased about one-third, so that now imports and exports are about equal; whilst in 1888 the export was about five times as much as the import. The principal increase of the import was from Belgium, and these are the figures concerning this country, viz.:—

	Import to Germany. Tons.	Export from Germany. Tons.
1888	2,964	3,589
1889	6,465	4,342
1890	8,672	4,958
1891	8,402	2,554
1892	10,090	1,671
1893	11,608	1,044
1894	9,709	1,744

Also the United States of America, which in former years sent only very small quantities to Germany, participated during the last two years in our import with great and increasing quantities. In 1893 they sent 1300 tons, and in 1894 even 7485 tons. As regards the working of our mines we have to report the following:—The working of the mine was principally carried on underground as in former years. Altogether we produced 781 tons of Potter's ore and 29,098 tons lead ore, against 678 tons Potter's ore, and 34,777 tons lead ore in 1893. Of this quantity 8·11 per cent. were raised from the eastern open workings, 7·75 per cent. from the western open workings, 35·72 per cent. from shaft Shapberg, and 48·42 per cent. from shaft Virginia; in 1893 the proportions were 10·65 per cent., 8 per cent., 33·93 per cent., and 47·42 per cent. The sandstone raised contained on an average about 51·7068 kilos, or 2·0277 per cent. lead per cubic metre, against 60·7546 kilos, or 2·3825 per cent. in 1893. In the new connecting passage in the third gallery between shaft Shafsberg and shaft Virginia 1015 metres have been cut out. On the side starting from shaft Virginia soft stone and heavy overweight have greatly interfered with the working, so that the completion of the passage can hardly be hoped for during the first half of this year. The northern crosscutting in the fourth gallery reached a length of 242 metres, and met the stratum of the sandstone at the length of 75 metres. The working has been suspended until the walling-up of the shaft under the third gallery. For exploring the north-western part of our concession the boring No. 4 was carried down to depth of 95 metres, and the presence of ore in the first stratum established. The boring No. 5 reached at the end of the year a depth of 57 metres. At the smelting works of the company 11 roast and five blast-furnaces were at work, which produced 16,002 tons lead and 6449 kilos. silver, against 20,232 tons and 14,666 kilos. in 1893. The number of workmen at the beginning of the year was 2536, and at the end of the year 2341, being an average for the year of 2425 persons, against 2516 persons in 1893. We carried 114,652 persons on our own railway to the different stations in our workings. The contributions to the insurance fund for accidents and old age, as well as to the companionship of miners, amounted to 206,597·26 mks., and the company paid 38,591·09 mks. taxes. The capital of the companionship of miners amounted at the end of 1894 to 257,984·56 mks., against 266,836·59 in 1893. 106,091·53 mks. were paid for pensions to invalids widow, and orphans, besides 25,096·64 mks. for temporary sickness. The condition of this fund have again been very unfavourable, and a diminution could not be prevented in spite of raising the contribution 20 per cent. The prospects for next year appear no better, if the conditions for the sale of our products take no better turn.

The report was agreed to, as well as the reduction of the capital.

UNITED MEXICAN MINING COMPANY (LIMITED).—An adjourned extraordinary general meeting of this company was held at Winchester House on Thursday, Mr. John Grove Johnson, the Chairman, presiding. Resolutions were passed sanctioning the reconstruction of the company, and Messrs. J. G. Johnson and W. L. Hunt were appointed liquidators.

CARDIFF CASTLE GOLD MINES (LIMITED).—The transfer of the mines to the company has been completed, and Messrs. Oxley and Brazier have taken management of the mine on behalf of the company.

THE PROPOSED SYNDICATE IN THE IRON TRADE.—Particulars issued on Wednesday, with regard to the amalgamation among the Lancashire, South Yorkshire, and Midland ironmasters for the purpose of keeping up finished iron prices, show that a fund of £30,000 is to be raised to defray expenses. The books of every ironmaster joining are to be open to full inspection, and copies of all contracts made with buyers, and the contract figures are to be periodically forwarded to the syndicate officials. The prices declared by the committee of management are to be posted upon 'Change, and heavy money penalties attach to any breach of them.

TASMANIA CROWN SILVER MINING COMPANY, LIMITED.

Encouraging news from the mine manager.

The annual general meeting of this company was held at the Cannon-street Hotel, on Tuesday, Colonel G. R. DEASE presiding.

The SECRETARY (Mr. F. J. Asbury) having read the notice convening the meeting,

The CHAIRMAN, in moving the adoption of the report, said: I think the amount of work done during the year ending 30th September, 1894—that is, a total of 1353 feet in shaft sinking and driving, at a cost of about £4400—may bear favourable comparison with what has been done in other mines in the same district, and we have no reason to think that our mine manager, Mr. Tilly, has failed in any way to do good work for the company. At the same time, we cannot but regret that the results on section 199 have been altogether unsatisfactory. It will be remembered that in April last, acting on the suggestion of some of our largest shareholders, we asked Mr. John Provis, who is well known to be one of the most experienced and successful mine managers on the Zeehan field, to make a careful inspection of the property and works, and to give us an independent report and opinion on the situation. A copy of his report was duly sent round to all the shareholders, and in it he expressed approval of the operations so far as they had gone, and was evidently of opinion that everything had been done to develop the mine in a proper manner, and he advised us to continue working on the same lines, which he expected would, at no distant date, lead to good results. However, early in the month of November, finding that our capital was running low, and that our prospects were not improving, as we had not yet found payable ore at the depth to which we had attained, it was decided to suspend further working on this section, and try what could be done on section 736, where already some tributors had met with payable ore. This section adjoins the Western and Montana properties, on both of which good ore is being obtained, and dividends to the amount of £36,000 have been paid on the former. A deep adit is now being driven from east to west on this section, which we have every reason to believe will intersect the various Montana lodes, which should connect in our property with the rich lode recently discovered on the Western property close to our northern boundary. The lode is 18 inches wide, and ore from the outcrop has assayed as much as 260 ounces of silver to the ton. This is, no doubt, the same lode as is being worked in tribute No. 1, on our section 736. The ground rises on our side, so that we have had to sink a shaft, which should cut the lode at about 70 feet from the surface. The manager is also driving an adit from the level of the stream to connect with this shaft. The latest news we have is in a letter from Mr. Tilly, received yesterday, and dated 17th January. In this he says:—

> I may here repeat the reasons which have led me to come to the conclusion that the western portion of section 736 is worthy of further exploration with reasonable hope of success:—1st. The Montana mine, which lies immediately to the south, is developing very satisfactorily. The lodes on which they are working are running directly into the Crown property, and may reasonably be expected to run through it in a northerly direction towards the lode discovered by the tributors in the north-west portion of the section.—2nd. This expectation is confirmed by the exploration we are now making by driving the deep adit in a westerly direction through the section We have already cut through two distinct lode formation, which very nearly correspond with the Montana lodes. Another confirmation of these being the same lodes arises from the fact that the composition of the gangue contained in each is identical. It is true that, so far, we have not found any mineral of value, but this may arise from the fact that we are not yet sufficiently deep enough. The sketch will give you an idea of the relative position and depth of the points referred to. The question might then be asked, "Why not proceed at once to go deep enough?" The reply to which is, that it is difficult to determine at present the most advantageous position for a main shaft. We have already cut two lodes in the deep adit, and, in all probability, by continuing the drive towards the western boundary, which is yet 400 feet away, we shall discover other veins of ore. In the meantime the lodes already found can be driven on their course and explored to the surface. The distance to the surface would vary from 60 to 100 feet, and it is more than likely that some branches of ore may be met with, which would at least pay for the cost. When this was done—it would take about four months—the position for a main shaft could be determined with more certainty of its being placed in the best position. I may here mention that the surface being covered with a peaty soil, there is not the slightest indication to guide one in the matter.—3rd. Another feature of encouragement for the prospecting of this ground is that the ores found on either side of it, as well as that which has been found in it, are of good quality, seldom giving less than 100 ounces of silver, and from 70 to 80 per cent of lead to the ton. One essential required to carry out these explorations is good ventilation. In order to obtain this we intend to communicate with the surface by rising on the course of the underlay of the No. 2 lode. The distances will be about 60 feet; we have already gone up 16 feet. The gangue of the lode on the footwall is looking favourable, and contains small stringers of ore running all through it. As soon as we can get an improved ventilation we intend to proceed with the drivings above referred to.

Then he goes on to say, with regard to tribute No. 1:—

> The tributors are still sinking the underlay shaft to communicate with the underground workings, and are getting out some very good ore. Besides this they are cleaning fine stuff from the shaft by means of a small hand-jigger. They are hoping to sample another small parcel next week.

That is all Mr. Tilly's letter, except a few sentences which are not worth recording. This news is so far encouraging as to lead us to hope that we are now in a fair way to be able to pay our working expenses, while at the same time we shall open up a rich paying lode. Of course, the low price at which silver continues is a serious drawback, but there appears to be some hope that it has touched the lowest point, and signs are not wanting that an improvement may be expected. Your directors, at the initiation of the company, having in view the possibility that the working capital might prove to be insufficient, made arrangements with Mr. Myring, the vendor, that he should take up 10,000 of the reserved shares at par if called on to do so. It has been found necessary to make this call, so that we have no reason to fear that any want of success may arise from insufficient capital. I may add that, in response to that call, Mr. Myring has taken up 1000 shares, and lodged £1000 in the bank. (Hear, hear.) While your directors cannot but feel dissatisfied with the results so far, they have no reason to despond, and they still hope for better success and a dividend. For various private reasons I do not seek re-election, my term of office having expired; and in retiring from the board I wish to express my thanks to the other directors for their cordial co-operation at all times, and my regret that I shall be no longer associated with them. My reasons are purely private. I have got a good deal to do, and as I live on the other side of the Channel, I find that the very frequent journeys backwards and forwards do not suit me. You have, however, got a very able board without me. I now beg to move the adoption of the report and accounts.

Mr. G. H. HARGREAVES seconded the resolution.

The CHAIRMAN, replying to questions from SHAREHOLDERS, said they only asked Mr. Myring for £1000. The £10,000 was to be called up as required. They were still in funds, and he had done exactly as they had asked him. The directors had not taken the £550 mentioned in the balance-sheet as their fees. That stood as a liability at present, but his colleagues empowered him to say that if there was any difficulty about the matter they were perfectly willing to renounce those fees. (Hear, hear.)

The auditors, Messrs. Fuller and Wise, were re-elected, on the motion of Mr. COLEMAN, seconded by Mr. ALLEN.

Mr. LANDER regretted that the Chairman had been obliged to retire from the board, and said he thought that feeling would also be experienced on the other side of the table. (Hear, hear.) Colonel Dease, although living in Ireland, had never neglected his duties at the board, but had constantly come over and devoted his time and energies to the business of the company. He moved that a vote of thanks be accorded to the Chairman.

Mr. COLEMAN seconded the motion, which was unanimously carried.

The CHAIRMAN, replying, said he had taken a great deal of trouble and spent considerable money in coming backwards and forwards in the interests of the company, and he only wished they had had the good luck to commence operations on the section on which they were now working, instead of on the other. (Hear, hear.) However, it was very easy to be wise after the event. They had to buy their experience, and if they had bought it in this case a little dearly, he hoped they had bought it, and that they would obtain good results from the present work.

The meeting then closed.

CARLYLE GOLD MINES COMPANY.

Getting into working order.—A tried mine.

The first statutory general meeting of the shareholders in the Carlyle Gold Mines (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Sir JAMES MACKENZIE.

The SECRETARY (Mr. F. S. Hoblyn), read the notice convening the meeting.

The CHAIRMAN said: Gentlemen,—As you are aware, this is merely the first meeting, called in conformity with the Act of Parliament, to show the vitality of the company. There is no report or statement of accounts to present, and no business to transact. We have put off the meeting until the last moment in expectation of receiving a cablegram up to date from the mine, which would add to the interest of the proceedings. I should like to take this opportunity of saying a few words about the present position of the company. It was incorporated in October last, and I am glad to tell you that the mining leases were transferred to, and registered in, the name of the company on December 10 last, and we have paid for the same in cash and shares, in the terms of the prospectus. You must remember ours is not an untried mine. It is a real mine that has been working for two years. It has seven shafts carried to depths from 40 feet to 100 feet, in each of which the lodes have proved remunerative and some thousands of tons of ore have been removed. Then there is another element of strength in the connection of the undertaking with the North Queensland Mining Agency. This corporation is a strong and substantial one, and stands high in estimation. They paid the other day a dividend of 25 per cent., and, in view of their interest in our company, I think it is certain that we may look to them to forward our success, for the sake of recouping themselves, and for their own good name. They own the adjoining mine to ours—a mine also of proved value, which is equipped with a battery of stamps. Your board have been able to obtain the use of this battery for the purpose of crushing our ore, pending the erection of our own machinery, which is necessarily a question of time. Therefore, I think we may look for some immediate return from this, and I shall shortly read the latest information which we have on the subject. They also possess a lake of water, or dam, only ¾ of a mile from our mine, and over this water we have permanent rights. Then with regard to the management, the North Queensland Agency have been appointed our managers in Perth, and its Chairman and Mr. Moran, who is in the legislature there, are our local advisers. Their managing director, Mr. MacFie, left London in November last, to look after our business, in connection with other matters, and the board of directors here had the great advantage of Mr. MacFie's presence in London to confer with him, and verify all the circumstances connected with the mine and arrange the future conduct of business. The manager is Mr. Jacobson, who has been appointed there to superintend the mine, and he is the gentleman who originally reported on it. Therefore, we may expect that he will prove his faith by his work there. I may read a few particulars we have received concerning the mine. You may remember that after Mr. MacFie's arrival the holidays began at Christmas, and extended nearly to the end of January. Therefore, there has not been time to do very much. We received from Mr. Jacobson on December 26th the following:—"Carlyle: crushing may be started immediately. Battery, &c., is completed, and, with a small outlay, there would be thousands of tons of ore ready to crush." Then on January 18th, during the holiday time, we received the following from Mr. Jacobson:—"I went up to Range the other day to employ sufficient labour to hold the Carlyle, and I had an opportunity to see some splendid stone at bottom of Carlyle that had been broken into during the last week which the mines were at work." On January 22nd we received the following cablegram from Mr. MacFie:—"Carlyle has placed in our possession a large body of ore. About to commence crushing. Winding engine is wanted for sinking shaft." That we at once authorised them to purchase. It seemed desirable we should know something about the matrix of the gold deposit in the mine, and in order to ascertain its chemical constituents, we submitted some samples from one of the shafts to Messrs. Johnson and Matthey, with the favourable result that there was nothing deleterious in it—no arsenic or sulphur—and the gold corresponded exactly in quantity with Mr. Jacobson's report as printed in the prospectus. There is one point I have much pleasure in stating to the meeting—which is that one of our colleagues, the Hon. Hume Black, who has been Minister for Lands in Queensland proposes to return for a time to Australia, and has placed his services very kindly at the disposal of the board to inspect, if desired, our property out there, to make an investigation into everything connected with the mine there, and report fully to the board. I need not say we have gratefully accepted Mr. Black's offer, for the obtaining of reliable and independent testimony of this sort is of the utmost importance to us. There is nothing else, I think, which I need say, but I shall, of course, be very glad to answer any questions.

A vote of thanks to the Chairman, proposed by Mr. BYRNE, and seconded by Mr. BLACK, concluded the proceedings.

TRANSVAAL GOLD FIELDS, LIMITED.

An economical formation.—Good news of the property.

The first ordinary general meeting of The Transvaal Gold Fields (Limited) was held on Wednesday, at Winchester House, Old Broad-street, E.C.,—Mr. LOFTUS FITZWYGRAM presiding.

The SECRETARY (Mr. Arthur B. Atkinson) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, no doubt you are aware this is a meeting convened under the clause in the Act of 1867, which provides that companies shall hold a meeting of shareholders within four months after the date of incorporation. It is generally called the statutory meeting. On these occasions no accounts are presented, and no formal report is issued; in fact, very little is said, and still less done, and some people go so far as to call these meetings a trouble and a nuisance. Your directors, however, do not share this view, and, speaking for myself, with some experience in the administration of joint-stock companies, I may say I consider that the sooner the shareholders and the directors make the acquaintance of each other, and the oftener they meet in friendly consultation, the better. And there is a further reason for the statutory meeting being held. As you know, in after days discussions very often arise about the statements in the original prospectus, and on other points. Now, by meeting us soon after the incorporation of the company the prospectus is fresh in everybody's memory; anybody can ask questions upon it, and proper explanations can be given. Though our acquaintance with you, gentlemen, has been so short, we know one fact which is very satisfactory, and that is that we have as solvent a constituency as can well exist. You will remember that the last call was only made on January 31, and I am happy to say, at this moment, that that and all antecedent calls have been paid up, and paid up in full. (Hear, hear.) Now, with the views I have expressed, you may expect me to say a few words on the origin and the progress and prospects of this company. I particularly allude to the origin, because I am one of those who consider the circumstances attending the formation of a joint-stock company to be of paramount importance. Many companies have been wrecked—if I may use the phrase—in harbour, before they ever got afloat, owing to one of two causes—the capital raised being excessive or the preliminary expenses being unduly high. These extra charges arise principally from what I say openly is the curse of the joint-stock companies of the present day—namely, the payment of promotion money. Now, we have avoided both these dangers. We thought the price asked by the vendors for the properties to be transferred to us to be fair and moderate; but we were not satisfied with that, and before we signed any contract we had an independent valuation made by a firm of the highest eminence in South African affairs, because we looked upon ourselves—not in a legal sense, but certainly in a moral sense—as your trustees. Well, that valuation entirely confirmed our own views, and it was only after receiving that opinion that we made the statement which we did in the prospectus—namely, that the price paid was fair, and that some of the properties had improved in value since they were purchased. Our next step was not to part with any of your money until we received the opinion of a well-known legal firm in South Africa that our title to the properties was perfect. This we received, and we have taken possession. Now, as to the preliminary expenses, which is generally the second rock upon which so many companies split, I do not think fault can be found for us in this case. The total aggregate amounts to as nearly as possible seven-eighths of 1 per cent. on the subscribed (not the nominal) capital, namely, £200,000. Anybody can calculate that, so I need not inform you what it amounts to. This includes the whole of the advertising expenses, in which item I think we, as the phrase goes, beat the record, as they only amount to £68 2s. 6d. I need not mention the large sum that companies generally spend in advertising. We have established a Paris agency with a well-known company, in which our esteemed friend, Mr. Bernstein, is managing director. For the general convenience of our shareholders, and especially of our Continental constituents, we have arranged to issue share warrants to bearer. And now I come to what, perhaps, is of more importance than anything else—and that is the progress we have made and our prospects. I must ask you, gentlemen, now to bear in mind that what I am about to say is not my opinion only, but the unanimous opinion of the whole board. We have every reason to be satisfied with the progress of the company. We started well, and have continued to prosper. Among other and profitable transactions that have taken place I wish to state that the West Rand Mines (Limited) in which, as stated in the prospectus, we have a most important holding, has through our instrumentality, been reconstructed and provided with working capital. For your information, I may mention that the West Rand Mines possesses over 380 Deep Level claims to the south of the George and May Gold Mining Company (Limited), and several water rights. It is confidently expected that the reefs will be intersected at a depth of 300 feet or, at most, 400 feet. The assays of the outcrop company prove the existence of highly payable ore; and it appears certain that the West Rand Mines will have a prosperous career. We have made a rough calculation of the profits resulting from the company's operations so far, and although it would not be right for us to go into figures, considering the short period of four months during which we have been in existence, I can assure you they are very substantial, and we hold assets which, if now parted with, would considerably enhance these profits; but we consider it is better for your interest to hold them for a time. We are, of course, always looking out for fresh business and new ventures, and we feel sure that the transactions we have from time to time entered into will ultimately result in handsome profits. The selection of such transactions rests naturally, to a great extent, with our managing director in Johannesburg (Mr. J. Berlein), and I must say that that gentleman is entitled to your best and most sincere thanks. I only wish he were here to-day to receive them; but there is a gentleman present to whom we are equally indebted, namely, Mr. Dettelbach, our managing director in London. I am most happy to avail myself of this, the first public opportunity of expressing to him the sense of gratitude which his colleagues, and I am sure the whole body of shareholders, entertain for his very valuable services. There is no formal resolution to be moved at such a meeting as this; but, in conclusion, I can only say I sincerely trust that, whoever may be the Chairman at our next meeting, he may be able to announce the same profitable results and the same confident hope for the future that I venture to do to-day. (Applause.)

Subsequently an extraordinary general meeting was held, when resolutions were passed making certain verbal alterations in the Articles of Association.

THE RHODESIAN MINING AND FINANCE COMPANY.

A highly satisfactory commencement.—Some profitable transactions concluded.

The first ordinary general meeting of the shareholders of the Rhodesian Mining and Finance Company (Limited) was held on Thursday, at Winchester House, the chair being occupied by Sir GEORGE CAMPBELL.

The SECRETARY (Mr. John Eustace) read the notice convening the meeting.

The CHAIRMAN said: Ladies and gentlemen, as you are doubtless aware, this, our first meeting, is held mainly for the purpose of complying with the statute which provides that every company constituted under the Liability Laws shall hold a meeting of shareholders within four months of its incorporation. Your board have thought it wise to call you together long before the expiry of the four months, chiefly because your issue of capital has been fully subscribed by the public, and because one of your directors has already started for South Africa, and another will go there in a few weeks to ensure that the syndicate's properties are duly transferred to this company before we part with any portion of the purchase-money. The transfer can hardly be complete before June next, and, therefore, active development will not be started on your properties until that date. Under these circumstances we thought it wise to call you together now, as even if we had delayed for another three months we could not have other information to give you than we can put before you to-day. I, in common with my brother directors, looked very closely into the prospects of this company before I agreed to join the board. I assured myself as far as I could of the honesty of the proposition made to us, and I enquired of competent engineers and others who were acquainted with Rhodesia as to the properties you were about to purchase. I honestly think that if there is the future for Rhodesia, which we all believe there is, our company will be well to the front, having, we consider, obtained on easy terms some of the most promising gold properties in Matabeleland. At this early stage of the company's existence you will not expect from me a long statement, nor any details of business transactions beyond what are set forth in our prospectus, but I am pleased to be able to tell you that nine very valuable stands, or building sites and house property in Buluwayo, were, a week ago, secured to us through one of your directors on terms which we consider very favourable to us. I am not at liberty to go into details, but I may tell you that the offices already built on three of these stands are let at rents which pay over 10 per cent. on the sum we have paid for all the nine stands with their buildings. Our company, as you will notice by its title and Articles of Association, is not only a mining company, but it is a finance company as well, and we have already had some very good finance business brought to us by certain members of the board, and we are sanguine that in this department our prospects may be as good as they are in regard to mining. The board are very pleased to be able to announce to the shareholders that Mr. Francis Lowrey will represent the company in South Africa as managing director. Mr. Lowrey is, as most of you are aware, a gentleman of very great experience in South African mining. He is Chairman and director of some of the best and largest gold mines on the Rand, and he will undoubtedly be able to conduct the affairs of this company in Africa in a manner which will satisfy us all, and Mr. Lowrey is well acquainted with Mashonaland and Matabeleland. Further, one of our directors, Mr. George Grant

who is about to proceed to South Africa to take the properties over, spent several months in Matabeleland last year, and was instrumental in acquiring our present assets. He will, we hope, be able to secure other good properties on very favourable terms. Another of our directors, Mr. F. C. D. Haggard, who will co-operate with Mr. Lowrey and Mr. Grant, sailed for South Africa on Saturday last, and will, we hope, do excellent service in our interests in conjunction with these gentlemen. Here we shall have with us, for some time, at least, another director, Mr. Campbell Johnson, who is widely and favourably known in South Africa, and who, from his knowledge of mining, is a very valuable colleague. There is one other point I should like to put before you, as it bears strongly on the prospects of your company—that is its strong financial position. The whole of the 60,000 shares offered to the public have been subscribed, and 5s. has been paid, leaving an uncalled capital of £45,000 spread over between 700 and 800 undeniably good shareholders; and we have, moreover, 150,000 unissued shares. We are thus in a position to enter into large transactions at very short notice—such transactions, for instance, as taking over valuable properties for cash or shares, and saving their owners the risk and cost of floating companies for the development of such properties. And now, ladies and gentlemen, we shall be pleased to answer as well as we can any questions you may wish to ask.

The CHAIRMAN, speaking in answer to questions, said the whole of the shares had been subscribed for by shareholders on the merits of the undertaking, and that the underwriter had been released from his obligation.

A vote of thanks to the Chairman and directors terminated the proceedings.

OCEANA DEVELOPMENT COMPANY, LIMITED.

The Chairman has every confidence in their future success.

The second ordinary general meeting of the members of this company was held on Wednesday, at the Cannon-street Hotel, Mr. C. A. V. CONYBEARE, M.P., the Chairman, presiding.

The SECRETARY (Mr. Samuel C. Fox) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, you have the report and the balance-sheet for the past year before you, and the tale which they disclose is so simple and straightforward that there is really very little that I can dwell upon so as to interest you without wasting your time. The accounts are, I believe, perfectly intelligible, and, I hope, not altogether unsatisfactory to you. At our last meeting we presented to you a statement for the whole of the first 18 months of the company's existence, and, as a result of the working for that period, we were able to recommend, by way of dividend, a distribution of a large number of fully-paid shares in the Oceana Transvaal Coal Company. Those who have retained those shares will, I believe, yet have the satisfaction of seeing good value for them, if, as I hope, the recent rumours of active prospecting work and important discoveries of reefs in the immediate neighbourhood of the coal company's properties should be confirmed. You will notice that the value of the fully-paid shares in this company, which we still retain as an asset, is set down at 5s. per share, with regard to which your auditors, with a caution which is highly commendable, state in their certificate:—"The directors have valued the shares in the coal company, which value is introduced on their responsibility, and, together with those attached to the company's investments, are subject to realisation." You must recollect that the balance-sheet now before you is brought down only to September 30 last. We, therefore, took the value of the shares, as per the valuation of a competent broker at that date. Our certificate from a well-known and highly respected firm represented the value of the partly-paid shares as 3s. 9d., which, I think you will agree with me, fully justified us in the conclusion (from which your auditors do not dissent) that our fully-paid shares are worth at least 5s. Supposing the expectation to which I just now alluded to be in any degree realised during the present year, this figure may at any moment leap up to almost as many pounds. In connection with that, I am glad to say that I saw in one of this morning's papers a paragraph relating to the pegging which is now going on in the Heidelberg district, and which I will read to you:—

> Pegging is now going on at an unprecedented rate in the Heidelberg district, and there is much active dealing in gold claims. A large block of Deep Level claims on the farm Varkensfontein has recently been acquired by the Consolidated Gold Fields, and the whole of the farm, with the exception of the extreme northern corner, has been pegged out for Salmon and others. It is thus rendered very probable that sufficient capital will before long be forthcoming for the systematic exploitation of this region. The Eastern Nigel Extension and the farm Draaikraal are still being actively prospected. The whole farm is pegged out as an extension of the dip ground on the Nigel reef.

The paragraph, it is true, refers more particularly to the district immediately north of Heidelberg; but we hear from official sources of information that the same pegging out for gold claims is going on on the south side of Heidelberg, where the coal company's property is principally situated, and that the farm Elandsfontein—which, as you know, belongs to this company, and a portion of which, I think, was transferred to the coal company—is also being pegged out in the same way. I mention this in order to show that although the coal company has been in difficulties, and the shares are, perhaps, not in favour at the present moment, I am quite justified in expressing the view that as the whole of the district is rapidly coming to the front for gold as well as for coal, whatever the difficulties of transport to a market at present may be for the coal—which is known to exist, is of very good quality, and which is being turned out in considerable quantities by the coal company—you will by-and-by have a considerable local demand for the purpose of working the gold properties which are coming into favour in the immediate neighbourhood of your coal properties. Let us, however, leave speculation as to the future, and confine our attention to the more prosaic details of to-day. I think I may claim for the administration of your affairs that we have conducted them, if not to the most brilliant results, at least with economy and efficiency, and there are only one or two items in the account to which I need draw attention. On the debtor side of the balance-sheet I should like to mention that the large amount which figures under the heading "creditors," £6927 6s. 5d., practically represents the moneys advanced by the Oceana Company during the earlier period for the working of things in the Transvaal, and that, by repayments, has been reduced now to about £1500. On the other side, I might mention that the item "investments" represents not only a certain number of coal shares—some 2000 of the coal company's shares which we took when the company was first formed—but also an interest in several syndicates connected with the railway developments which are now in progress, an interest in the Gold Fields Deep Levels which we have, and perhaps one or two other minor matters. You may, perhaps, observe that this item of £3482 10s., under the head of investments, is a larger figure than it was last year; but that is because we have paid up the calls which were due, and, therefore the liability on the shares is less. It does not represent an actual increase in the matter of going into a new investment. The debit balance which you have to profit and loss, £6528, I would remark, includes the considerable sum, to which I will say a word in a moment, under the head of "prospecting" £3116, and if you allow for that—which, as you will see directly, has been one of the main objects of the company's existence—it reduces the balance and gives the general financial position a very fair appearance. Now, with respect to this sum of £3116 which we have spent on prospecting, this may seem to you disproportionately large—at any rate, in comparison with the results achieved. But I would remark, first, that as the whole *raison d'etre* of this company is the development of the properties it took over, and as the development of Transvaal properties for the present consists mainly in prospecting for gold reefs, we could hardly have been expected to sit still, with our hands before us, doing nothing, or waiting, like a certain historical personage, for something to turn up. The immediate results of the boring operations represented by that sum of £3116 may not tend to the opening up of a payable gold reef, but the fact that we have been recently offered large sums for the farms Eendragt and Koppie's Kraal, close to Heidelberg, on which these operations took place, with the reservation of one-half of the mineral rights, is sufficient evidence of the value commonly believed to be attached to them. In view, however, of the rapidly-approaching completion to Heidelberg of the Natal-Johannesburg Railway, we have thought it our duty to refuse all such tempting offers, believing that, as those who make us those offers have in view a much larger profit, we are justified in waiting a little longer to reap that profit for ourselves. This we were the more disposed to do as we had secured in the persons of the Messrs. Tudhope, a well-known and highly-respected colonial family, excellent agricultural tenants for the two farms. With regard, however, to the general question of the heavy expenditure on the prospecting work, I am happy to assure you that we do not contemplate a repetition of it this year; for we have entered into an agreement with an influential group of friends whereby prospecting of the remaining farms will be undertaken at their cost, on terms very favourable to us in the event of discoveries being made which should justify the formation of any subordinate companies to work any of them as separate properties. This arrangement will leave us free to employ our own resources on the development of your farms by agricultural and planting operations, in which respect a most successful beginning has been made by our energetic representative Mr. McEvoy, on the Bloemhof block. Those who are at all familiar with the Transvaal will be aware of the value attaching to tree plantations, and the 20,000 or more of young trees which Mr. McEvoy has now well in hand will, in all probability, within a few years represent at least as many sovereigns. That may seem an astonishing statement, but you may know that trees out there grow very rapidly, and in a few years from the time they are planted are pretty valuable. The eucalyptus trees grow at the rate of 10 feet to 12 feet per year, and it is this timber which is much sought after for mining purposes. As the Bloemhof Farm is within easy reach of the Witwatersrand district, I have but very little doubt that when the time comes—in the course of a few years—we shall be able to get a very good price for the timber which we shall be able to supply to the mines. What is being now so successfully accomplished by Mr. McEvoy in that district can with equal success be carried out elsewhere. Indeed, we have already on Eendragt a very fair plantation, which must now be of least five years' growth, and should itself form a not inconsiderable addition to the value of that farm. There are other prospects upon which it would be premature at this moment to dwell. I can only assure you that from a close study of the Transvaal—which I regard as a most magnificent country—extending now over a good many years, combined with the personal observations and impressions gathered in more than one visit, I have every confidence in our future success. The Transvaal, and, indeed, South Africa generally, is a country of surprises, and, almost at any moment, a big prize may fall to our lot. I do not think that I have anything further to say to you. It has been said that happy is the country which has no history; but I may say that if our history has not been so eventful during the past year as it might have been, I hope it is not without elements which will tend to our future success. I now beg to move:—"That the report of the directors and the accounts be received and adopted," and if any shareholder has any observations to make, or any questions to ask, I shall be glad to reply to them.

Mr. J. G. SMITH seconded the motion, which was carried unanimously.

Messrs. C. A. V. Conybeare, and F. R. Bullock, the retiring directors, were, on the motion of Mr. H. PASTEUR, seconded by Mr. GEORGE T. RAIT, unanimously re-elected.

Messrs. Welton, Jones, and Co., the auditors, were also re-elected.

The meeting then closed.

THE EXPLORERS SYNDICATE, LIMITED.

A dividend of 10 per cent.

The first ordinary general meeting of this company was held at Winchester House, on Thursday, Mr. E. T. READ presiding.

The CHAIRMAN said: Gentlemen, we are very pleased to meet our shareholders, and to tell you that the business is not only going on as well as could be expected, but it has already proceeded far more satisfactorily than either you or we had any right to expect. The first business of any importance that we transacted was the acquisition of an interest in the Lindsay Gold Mines (Limited), a property which many of you know, because you are shareholders in that company. It is a property which I honestly believe to be one of the finest—if not the finest—that has ever come on the English market from Western Australia. We are informed that local opinion over there—and I believe that local opinion is far more to be relied on in mining matters than any opinion you get from mining engineers—says that that property is as good as the Londonderry Mine, which was recently placed on the English market with a very large capital. Our business is, to a considerable extent, promotion, and promotion in these days is very different from what it was a few years ago. One of the great difficulties one has to contend against in promotion is to carefully consider the reports on which you purchase properties. It is not sufficient that those reports should be of a satisfactory nature; you require to know whom the parties are who make them. Our syndicate is very well placed as regards getting reliable information. We have appointed a first-rate man as our agent in Perth—a gentleman who is a justice of the peace there, and has invested largely in, and had a great deal to do with, mining properties—and he is in a position to find out at once, if we cable him the name of any man who has reported on a property, as to whether that man's report is reliable or not. Last week we dispatched our own engineer to Coolgardie, where he goes to report on certain properties in which we have already acquired an interest, or are proposing to acquire an interest, and I have no doubt that in a couple of months we shall have his reports. After he has concluded reporting on these properties he has specific instructions from us to organise a prospecting party, and we hope he will discover some property for us which is worth having, and I do not think we could possibly have selected a better man for the purpose. Our instructions are that if he finds a prospect which he considers good he is to spend a little money in opening up and developing the property, and if he still finds that it bears out his opinions he is to spend further money in opening it well up. When he has done that he has our instructions to have reports made by certain gentlemen in whom we have confidence, and whose names we have given him, and he will send those reports, together with specimens of the ore, to London. We then propose either to handle the property ourselves, and put it before the public, to sell it to other parties, possibly, or to float it in conjunction with our friends on this side. The directors have decided to declare an interim dividend for the six months expiring April 30 at the rate of 10 per cent., and you will receive your dividend warrants on or about May 1. (Applause.) As you know, our capital is composed of ordinary and deferred shares, the latter being founders' shares really. We can never declare a larger interim dividend than 10 per cent., because at the end of each 12 months we have to reckon up our profits; the ordinary shares are entitled to 10 per cent. for 12 months, and then the founders' shares take a certain proportion—one half. Had it not been so, I think without difficulty we might have added another 0 to that 10 per cent. dividend. (Applause.) We have elected Mr. Oxenford to a seat on the board, and I consider a great deal of the success of the syndicate is due to Mr. Oxenford's exertions. We are not in want of money, as you can gather from what I have said; but we should be very pleased if the whole of our capital were subscribed, because the more money we have in hand the more business we can do; and the board has decided that any original shareholders who choose to put in applications for further shares can have them at par. Any that are allotted to the public must be at a premium, because you will see from what I have stated that we must have a very large amount of undivided profits in hand, and it is only fair that any outsiders who come in now should pay for their share of those profits. Any premiums we so receive will go to form the nucleus of a reserve fund. I hope when we meet you at the end of this year we shall have an equally good or better report to present to you than I have given you this day. (Applause.)

A vote of thanks to the Chairman closed the meeting.

WEST AUSTRALIAN EXPLORATION SYNDICATE.

A good commencement.

The first (statutory) general meeting of the shareholders of the West Australian Exploration Syndicate was held on Thursday, at Cannon-street Hotel, the chair being occupied by Sir HORACE FARQUHAR.

The SECRETARY (Mr. Cecil Quenell), read the notice convening the meeting.

The CHAIRMAN said: Gentlemen: I have merely called you together to-day because by the law we are obliged to have a statutory meeting, and practically I have very little to say to you. As you know, the company was incorporated about four months ago with a capital of £100,000, of which £75,000 was offered for public subscription, and mostly taken very readily by the shareholders of the Exploration Company. We sent out Mr. Duffield, our expert, and he is now in West Australia trying to find a property, and seeing what can be done in our interest. I may tell you that he has already bought one small property for us. We had better not go into details just now, but he has already thought it wise to make one purchase on account of the West Australian Syndicate, and I hope it will turn out well, as we have every reason to believe it will. At present, however, we do not know much about it. Just now we do not see any reason to think we shall require any more money, and when we do, of course, we shall tell you in due course. That really is all I have to say to you.

The proceedings then terminated.

LEVANT.

A loss of £90.

A four-months' meeting of the adventurers in this mine was held on Tuesday, on the mine, Major R WHITE (the purser) presiding.

The accounts showed that the labour costs amounted to £7776 8s. 6d.; the merchants' bills, £2193 19s. 10d.; coals, £892 12s.; rents, £370 14s. 5d.; interest and commission, £44 13s. 1d.; total, £11,278 7s. 10d. On the credit side, the tin sales amounted (less lord's dues, £146 11s. 4d.) to £7131 6s. 10d.; copper ores (less lord's dues, £81 17s. 11d.), £3306 19s. 5d.; carriage, copper ore, £310 1s. 2d.; arsenic (less lord's dues, £10 17s. 1d.), £438 6s. 6d.; discount on merchants' bills, £1 13s. 9d.; total, £11,188 7s. 8d. The loss on the four months' working thus amounted to £90 0s. 2d., and there was a balance brought forward from the last account of £627 6s. 1d. After meeting the loss there remained a credit balance of £537 5s. 11d.

The CHAIRMAN remarked that though they had raised 8 lbs. of tin more during the present four months than in the preceding four months they had realised £600 less. It would not be necessary to make a call, as the loss could be paid out of the balance of £627.

Mr. H. OLDS: What dividend do you recommend, doctor?

Dr. QUICK: Where are you going to get it from? You will have to go to the devil for your dividend. (Laughter).

Mr. OLDS: Hard times, doctor.

The CHAIRMAN observed that tin was now at £41 15s. 6d.; two years ago it averaged £55. There was no doubt that the mine was gradually improving, and during the last four months they had taken on 20 extra men, and would, no doubt, take on more in the immediate future.

Mr. H. OLDS moved the adoption of the accounts, and that the balance of £537 5s. 11d. be carried forward.

Mr. COULSON seconded, and it was carried.

The agents (Captains Trembath, Murrish, and White) reported as follows:—

> North and South Lodes Submarine.—The 302 level west on the south lode has been driven through about 25 fathoms of good payable ground, and it is now worth £30 per fathom for copper driving at £8. The stopes in bottom of this level are worth £18 per fathom, stoping at £5. We have five stopes in back worth £16 per fathom for copper, stoping at £5, and three stopes worth £7 per fathom for tin and copper, stoping at £3. The 290 level west on the south lode has been driven through about 65 fathoms of good payable ground, and it is now worth £15 per fathom, driving at £10. The winze in bottom of this level is worth £35 per fathom, sinking at £7. The stopes in back of this level are worth on an average £12 per fathom, stoping at £5 10s. The 278 level west on the south lode is not working at present. We are putting up a rise to communicate with the 260 level, the value of which is £3 per fathom, rising at £7. The stope in bottom of this level is worth £9 per fathom, stoping at £3 12s. 6d. The stope in back of this level is worth £3 per fathom, stoping at £3. The 260 level west the south lode is worth £6 per fathom, driving at £7. The stopes in back of this level are worth £1 per fathom, stoping at £2 15s. The 250 west of crosscourse on the south lode is worth £5 per fathom, driving at £9 5s. The stopes in back of this level are worth £9 per fathom stoping at £3 5s. The 230 east of crosscut on the south lode is worth £5 1s., driving at £3. The stopes in back and bottom of the 241 level east of crosscut on south lode (east and west) are on average worth £7 per fathom, stoping at £3. The stopes in back of this level are worth on an average £3 10s. per fathom, stoping at £2 10s. The 230 west of crosscourse on the south lode is worth £16 per fathom, driving at £11 10s. As we expect to have a large quantity of stuff at this level, we have four men enlarging it to do the tramming by ponies, which we have found such a success at the 278. The stopes in back of this level are worth on an average £12 per fathom, stoping at £4 15s. The stope in back of this level east of crosscourse on the south lode is worth £5 per fathom, stoping at £2 12s. 6d. The 220 east on south lode is worth £3 per fathom, driving at £3. At the 210 we are crosscutting to strike the lode at £3 per fathom. The stopes in back of this level on south lode are worth on an average £7 per fathom, stoping at £3. The 190 west on branch is poor, driving at £7 10s. The stopes in back of this level are worth on an average £7 per fathom, stoping at £2 10s. The 170 west on branch is producing a little tin, driving at £3 15s. The stopes in back of this level are worth on an average £4 10s. per fathom, stoping at £2. The 150 west on branch is worth £4 per fathom, driving at £3 15s. We have driven in ends for the past 13 weeks 10 fathoms 6 inches, and are now driving 12 ends by 52 men and six boys, and we have 132 men and 14 boys working in stopes, winzes, and rises. We have 41 men and seven boys working in 19 pitches, varying from 6s. 3d. to 17s. in the £. Total employed on tutwork and tribute 275 men and 26 boys. Total employed in every department underground 370 men and 37 boys. We expect to raise about the same quantity of mineral for the ensuing 16 weeks as we have in the past.

The CHAIRMAN said one piece of information he had was that the new Californian stamps had been started working, and they were now able to stamp a considerable amount more stuff.

Captain JAMES (Wheal Basset) drew attention to the account for engineering work, amounting to £340. He thought the prices charged were 40 per cent. too high. It might be all very well to keep their mouths shut and pay, but in these times of depression they ought to do their level best to get things done as cheaply as possible. Their merchants' bills amounted to £3000, and he thought this was out of all reason. They ought to do with half of this.

The CHAIRMAN: And let things go to wreck.

Captain JAMES: No; not at all. If I have a bill that is too high I take it off. He could get work done cheaper at Camborne, and they only charged fair living prices.

The CHAIRMAN: I do not believe any of them are living up there.

Captain JAMES also compared that at Levant 8s. per ton was paid for coal, whereas at Wheal Basset only 6s. was paid.

Mr. OLDS thought they ought to buy coal cheaper if they could. They consumed 300 tons a month, and if they could purchase it 1s. 6d. or 2s. cheaper it would be a saving of several hundred pounds in the course of four months.

This concluded the business of the meeting

PARDY'S MOZAMBIQUE SYNDICATE.

A brilliant record.—Mr. Pardy on the company's prospects.

A general meeting of shareholders in Pardy's Mozambique Syndicate (Limited), Guy Fawkes Reef (Limited), Massi Kessi Reef (Limited), and Ingamasonga Reefs (Limited), was held yesterday, at the Cannon-street Hotel, for the purpose of hearing an address from Mr. Pardy.—Mr. T. H. WATSON presided.

The SECRETARY (Mr. R. Larchin) read the notice convening the meeting.

The CHAIRMAN, in opening the proceedings, said that he was sure that upon very few occasions did the Chairman of a company ever occupy a more pleasant position than he, himself, did that day. They had obtained an amount of success which had been the lot of very few companies started of late years in London. (Hear, hear.) It was also the fact that the children—if so he might call the subsidiary companies—of the company were in a fair way of becoming quite as prosperous as the syndicate itself. He was sorry to say that since Mr. Pardy's return from Africa he had been suffering intermittently from the after-effects of fever. On Tuesday he was again ill, and he had begun to fear that perhaps he might not be able to be present upon that occasion. However, he had been able to come, and the shareholders would hear from his lips a description of the various localities in which they were interested, of which he knew a great deal.

Mr. PARDY, who was received with applause, said he was very glad of the opportunity of addressing the shareholders. When he last had the honour of appearing before them—something like 12 months ago—they had fairly launched the enterprise, although it had not assumed the roseate appearance as to financial matters which he considered himself justified in saying was now its strong characteristics. Since their last meeting they had thoroughly proved the Guy Fawkes Mine, and with that he thought was closely bound up the success of Pardy's Mozambique Syndicate. They had also during the past year increased their holding by some 150 claims, bringing the total up to 292 claims. These claims were twice as large as those granted by the Chartered Company to their prospectors and their miners. Each gold mining claim in the Mozambique Company's territory, whether alluvial or reef, was 100 metres by 100 metres, or roughly in English measurement 109 yards by 109 yards. In that range of hills which Mr. Danford, the Surveyor-general, had in the trigonometrical survey which he had prepared for his Government been pleased to designate the Pardy Range, they had in one unbroken line 50 claims, or something like 3½ miles. (Applause.) The reef had been proved in nearly every one of those claims. Then some 7 miles to the north-west of Fort Massi Kessi they had come across a very rich area in a new district. He was certain this would prove a very valuable property to Pardy's Syndicate. In 1891 Mr. Halliday, who was in the district, seeing what he could discover for the people who were backing him in Johannesburg, drove into this reef and pegged off 24 claims. He was so perfectly satisfied that he went back to Johannesburg for the purpose of floating a company. Unfortunately he contracted malarial fever, and died there, and the syndicate stepped into his shoes. As yet he (the speaker) had not been able to spare the men or the time for thoroughly prospecting this district; but from indications there he should be very disappointed if they did not discover some good properties. Certain rumours had reached him as to the impatience shown by shareholders in the Guy Fawkes Reef because there had not yet been any crushings. This reef was discovered on November 5th, 1893—hence its name. This, their first baby, was only 16 months old, and he was very adverse to cramming infants, and wished, rather, to await their normal development. He took machinery up with him to the property, and they had been hard at work developing this mine. Respecting this property, Mr. Danford, in his report, said:—"I found this property to consist of a series of gold-bearing veins, all running in the same direction, namely, W.N.W. by E.S.E., with, in nearly every case, a dip of 80° N. That which I may here designate as the main reef, though very narrow, 9 inches, on the date (October 24th, 1894) on which I made my inspection, was exceedingly well-defined, and was cased on the South with dark slate, and on the north with talcose schist. I took some quartz from this reef at a depth of about 150 feet in which there was no visible gold. The pannings from this were excellent, in fact, were equal, I consider, to many specimens I have seen from the Crown Reef in Johannesburg, which also did not carry visible gold. The reefs are of a fairly soft nature, presenting a bluish-white appearance, open-grained, and carry fully the crystals of chromate of lead, which are, in this region, considered to be a sure indication of gold-bearing quartz." He might particularly direct their attention to the statement that the veins in nearly all cases had a dip of 80°, because the straighter a reef went down the longer was its life. Mr. Danford was, undoubtedly, one of the most reliable and well-known men in South Africa, and his opinion was as valuable as any that could be put before them. In sending his report Mr. Danford had written to him personally as follows:—"Dear Mr. Pardy,—I have very much pleasure in acceding to your request to report on your property. I consider that your pluck and energy deserve the greatest assistance from my company. I enclose my report on your property, which, I trust, you will do me the honour to accept without payment in any form. I can only assure you that it has been a pleasure to me to do anything in my power to assist your enterprise, which is undoubtedly deserving of all success. I am, as you know, your friend, and a well-wisher." With regard to the statement that there was no visible gold in some of the quartz taken he might mention that he had brought back with him some 6 cwts. of quartz, which showed no visible gold, 3 cwts. of which was sent to Messrs. Johnson and Matthey, and the remainder to Messrs. Claudet for assay. Both reports came within 3 dwts. of each other, and gave 1½ ounce. The owners of South African properties were now quite satisfied with assays of ½ ounce to the ton, and he should be quite content with the same results. To show that his opinion as to the necessity of not starting crushing before the mine was perfectly ready for it was sound, he might quote Mr. Danford as follows:—"Though much work has been done on this property since it was located, I should strongly recommend that the mine be thoroughly developed before the machinery is erected. I do not consider that the property has yet emerged from the prospecting stage. From the peculiar nature of the reefs many possibilities may occur, and success will then depend very largely upon having the machinery erected on a site suitable to treat all the ore without wasting the resources of the company in expensive and unnecessary haulage. In conclusion, I think that the Guy Fawkes Reef has a distinctly assured prosperous future before it: 1st, on account of the richness of the reefs; 2nd, on account of the abundance of wood and water, which will render the working expenses small; 3rd, on account of its proximity to the Beira railway, which is at the time of writing open to within 50 miles of the mine, and should, in the course of the ensuing year, be advanced considerably nearer. An almost level road can be made to join the property with the present terminus of the railway at a cost of about £300." He knew himself many good mines had been wrecked through crushing too early—before the mine was ready for it. In fact, the shareholders would probably be the very first to blame him if a commencement were made prematurely. A good deal, of course, depended on the cheapness of working, and there was no doubt that the very much increased railway facilities which had been given of late would largely tend in that direction. At present the railway had come within 50 miles of the mine, and for the remainder of the journey there was communication by a good level road. Mr. Stannard, whose recent death from fever had been such a loss to the company, had made a splendid road to connect the company with the main road, which was really a masterpiece of engineering. When he (the speaker) left, the country was being surveyed for the construction of additional railway, and according to proposed plans it would come almost through the fort. No doubt this extension of railway would be completed before the end of October. Everything possible would be done to hasten the crushing at the Guy Fawkes Reef, and probably before the end of the year there would be some results in this direction to present. Personally, he had no interests in the world other than the success of the Guy Fawkes, and every effort should be directed to ensuring it. The speaker proceeded in strong terms to deprecate the publication in certain London journals of accounts of the Guy Fawkes, the accuracy of which he denied. Further, he quoted an excerpt from the *Umtali Advertiser*, referring to the extensive and valuable character of the property, and to the extensive nature of the work which had already been done upon it. He especially warned the shareholders against parting with any of their shares on the advice of people who knew nothing of the property. For himself, he had parted with absolutely none of his shares, and, indeed, he should be glad, if possible, to get some additional ones. In fact, since he had been in England he had already increased his holding by 500 shares. Their success was not, of course, bound up with that of the Mozambique Company, although he believed that the latter body had acted to the best of their judgment in the expenditure of money, and their other operations. They had built a wharf and a quay at Beira, and were administering the country to the best of their ability. He was glad to be able to announce that the directors had decided to send out an exploratory expedition to Lisbon, for the purpose of acquiring even more favourable properties. He might read to them an extract from a letter he had received that morning from the property. When going out last year he took with him a young gentleman from the Civil Service, at Dublin, and that morning had received a letter from him in which he said: "You will be glad to hear the mine is looking particularly well, and the reef is widening." Very likely they now had a foot of reef, and in the value of this he had every confidence. Upon his return to the property he was taking with him a quantity of machinery, and intended to start work simultaneously on the three properties. (Applause.)

The CHAIRMAN said he felt sure they could not have found in London a man who would have acted so ably in the interests of the company as Mr. Pardy had done, and, no doubt, it would give him an additional confidence to know that he was backed up in London by men upon whom he could thoroughly rely. No Chairman of a company could be better supported by his colleagues than he had been. Mr. Pardy had done his work thoroughly well in Africa, and the London board had endeavoured to manage affairs at home to the best of their ability. What they had done for Pardy's Mozambique Syndicate they had also done for the subsidiary companies. When they had realised all they had sold of their property the Pardy's Mozambique Syndicate would have made more than 500 per cent. profit. (Applause.) Already they had paid some 30 per cent. in cash dividends and 100 per cent. in shares, and at the board meeting, on Tuesday, they had decided to pay an additional 25 per cent.—(applause)—while in about six months they would pay another dividend of the same amount. (Applause.)

A vote of thanks to Mr. Pardy for his able address, and to the Chairman and directors, terminated the proceedings.

COOLGARDIE GOLD SYNDICATE (SHERLAW'S) LIMITED.

An excellent property.—Latest from the mine.

The first (statutory) general meeting of the shareholders in this company was held yesterday at the Great Eastern Hotel, Bishopsgate-street, E.C., the chair being occupied by Mr. T. H. WATSON.

The CHAIRMAN, at the outset, requested the Secretary (Mr. R. Larchin) to read a cablegram received that morning from Mr. Sherlaw.

The SECRETARY read as follows:—"Have secured first-class gold property 24 acres. Deposit £1000, balance in three months. Full report by letter."

The CHAIRMAN said this was the statutory meeting, and he had little to tell them, but that little was as cheering as anything they could wish to hear in regard to the company. Mr. Sherlaw had gone out to West Australia, and since his departure they in London had received two or three telegrams from him. His ability as a mine inspector was of a very high order. He knew West Australia thoroughly, having been out there before, and had had his eye on a number of properties for some time that he knew to be valuable. Accordingly he had come to England for the purpose of forming a syndicate that would help him, not only to secure them, but work them when they were secured. So far as he had already gone he had two or three properties in view. It would be hardly advisable at present to mention the names of these properties—(hear, hear)—but Mr. Sherlaw knew where they were, and was doing his best to secure them on terms that would be highly advantageous to the syndicate. One he had already secured, and a cable had been received from him last week in regard to another in which he was interested himself, and, notwithstanding that fact he advised them not to give too much money for it. He had informed them by cable that the property was a thoroughly good one if it could be secured on reasonable terms, and he also mentioned what he thought to be a reasonable price. If they could get it for that sum they would do so, and would make a very handsome profit for the syndicate by so doing. The prospects of the syndicate were exceedingly bright. No doubt they would soon obtain full particulars concerning the property of which he had wired to them, and if they were able to purchase it they would endeavour to put it on the market. There would be little difficulty in doing this, for Mr. Sherlaw was well known to be one of the best judges of a gold mining property out in West Australia. They had at the office at the present moment samples of the mines Mr. Sherlaw had inspected, which would compare highly favourably with anything the Londonderry Company could show. When the mine from which this specimen had come, was on the London market he should be very disappointed if they were not able to call the shareholders together in six months' time, and show a very handsome profit. At the same time he should be certain that the period of good dividends was only delayed. Mr. Sherlaw was not, of course, out there to buy properties from those who had done their best to make a market for certain properties. He was there to secure them himself as lessee at first-hand—(applause)—and they would get the benefit of all he could obtain after that manner. He was there to serve the syndicate and nobody else, and he had himself a large interest in the syndicate. In conclusion, he hoped that what he had foreshadowed might be realised before long. (Applause.)

A SHAREHOLDER asked whether the shareholders of the syndicate would have preference in subscribing for the shares of the new company.

The CHAIRMAN replied in the affirmative. The shareholders would have the first offer of the shares, but they would not get them below par.

Mr. CHAVE said that the cablegram read by the secretary referred to the late find at Menzies, some 60 miles north of Coolgardie. According to the cable, he thought they had the very best mine on that field. He might state that Mr. Sherlaw arrived one morning at Coolgardie, and started straight away. He heard of Menzies' find, went up there, and got what, as he had said, he believed to be the very best thing on the field. He wired home for the money, and within 10 minutes it was being wired out. There was no doubt that the Londonderry was one of the best properties in the Coolgardie field. They had reports as to the adjoining property, which showed that the reefs running there were exactly the same as those in Londonderry. (Applause.)

Mr. AARONS, who had returned from Coolgardie last autumn, described a visit he had paid to the mines of the district, which he said he had inspected with great care and interest. The block Mr. Chave had mentioned was partly developed when he was there, and there were two or three shafts sunk on it, while a very nice reef was exposed at a depth of 30 feet in one place, and of 50 feet at another. The stone taken out was so much like that of the Londonderry that he could defy any mining expert to tell the difference between them. The reef appeared to be thoroughly well defined, making in depth, and in some places from 5 feet to 6 feet wide. He believed it would open out splendidly in depth. So far as the Londonderry was concerned, it was undoubtedly the richest mine he had ever seen down to the extent of its working. In conclusion, he might say that he thought the block which had been spoken of was a great deal better worth £100,000 than many of the properties floated on the London market were worth £20,000.

The proceedings then terminated.

THE MINERAL WEALTH OF SIBERIA.

TIN, MERCURY, and SULPHUR.

Continued from page 212.)

THE presence of tin ores was discovered in the Transbaikal province along the River Onona in the year 1811. These ores had long been exploited and smelted by the native Bouriata. These first discoveries gave rise to a search for tin ores in other localities along a distance of 100 versts, along both banks of the Onona. A mine was started, the tin ore was exploited from time to time, and the ore smelted on a small scale during the period of about 30 years. In 1843 this mine was ultimately closed, but this does not argue that the deposit is unfit for working, and there is reason for thinking that if it were more thoroughly explored, it would be possible to re-establish the exploitation of the ore.

The Ildikansk or cinnabar deposits in the Nerchinsk region lie in the mountains on the right side of the River Sernyi Ildikan. The cinnabar occurs in a vein passing through limestone, but its thickness rarely exceeds 2 inches. The exploitation of this vein was started in 1759, and was subsequently renewed several times, but without success. It may also be mentioned that the Yakuts living along the upper courses of the River Anga, which falls into the River Aldan, a right tributary of the Lena, employ cinnabar found by them in the system of this river as a medicine.

A deposit of native sulphur occurs in a limestone mountain at a distance of 1½ verst from the above-mentioned Ildikansk mercury deposit. Between 1789 and 1797, 425 pouds of sulphur were extracted from this deposit. Sulphur in the form of sulphur pyrites is extremely common in the metamorphic schists, covering vast areas in Eastern Siberia. The pyrites are disseminated in the schist, or occur in quartz veins intersecting the schists, or also form cross veins. Besides this, spheroidal concretions of sulphur pyrites are frequently found in the brown coal deposits along the River Kempendzyai, a right tributary of the Vilua. The exploitation of pyrites has not yet been carried on in any part of Eastern Siberia. In Western Siberia from 150,000 to 200,000 pouds of pyrites are annually raised from the Sougatovsk Mine in the Altai mining region.

COAL.

Deposits of coal are known throughout the whole extent of Siberia, from the borders of the Government of Orenburg to the mouths of the Lena, Kamchatka, Island of Sakhalen, and the frontier of Corea. At the present time, coal is only worked in Kouznetsk basin, on the Island of Sakhalen, and on the Khirgiz steppes. It is also proposed to exploit the recently-discovered and explored deposits of coal in the southern portion of the Littoral province. In the meantime, the varied application of mineral fuel obliges one to think that the Siberian railway will give rise to the exploitation of coal in various parts of Siberia, before it materially affects other branches of mining industry; and the railway itself will be in need of mineral fuel, especially in those localities where it passes through forestless steppe regions.

The following data treat upon the coal deposits in different parts of Siberia. In Western Siberia there are rich coal seams in the eastern portion of the Altai mining region in the Salairsk and Alatau Mountains. This is the so-called Kouznetsk coal basin. The southern limit of this basin lies at about 60 versts distance to the south of the town of Kouznetsk; its eastern boundary extends along the western declivity of the Alatau Mountains; its western boundary stretches along the eastern foot of the Salairsk Mountains, but in places recedes from it and approaches the River Ina, which falls into the Obi. The River Toma divides the basin along its length into two parts, and as strata, similar to those in which the coal seams lie in the neighbourhood of Kouznetsk, are also found along the banks of the River Toma up to the very town of Tomsk, it may in all likelihood be supposed that the coal basin extends to this town. Hence the entire basin should be 400 versts long and 100 wide; wide, which equals an area of 40,000 square versts. In many parts of this basin, thick seams of coal of excellent quality are found. The coal formations belong to the Jurassic system.

The Telbesk Iron Mine is situated on the south-eastern border of the Kouznetsk basin, on the River Telbes which falls into the Kandoma. This mine is estimated to contain a store of 75 million pouds of magnetic iron ore; and close to it there is another iron mine, the Soukharinsk. Such an abundance of iron ore, capable of guaranteeing a supply to a large iron works for a long period, induced the local mining management to make a careful survey of this south-eastern corner of the Kouznetsk basin, with a view to the discovery of coal veins in the neighbourhood of these iron mines. These surveys were crowned with perfect success, and gave the following results:—A seam of coal 1 sagene thick was found on the left bank of the Kandoma, at a distance of 5 versts from the village of Kaltansk. This seam was followed along its strike for 380 sagenes, and it was estimated to contain 8,300,000 pouds of coal. The first Kinerkinsk seam is situated on the left side of the River Kinerka, which falls into the Kandoma, above the village of Kaltansk. It has been followed for a distance of 163 sagenes, is 4 sagenes thick, and dips at an angle of 22°. The store of coal has been estimated at 16,400,000 pouds. The second seam is on the hanging wall of the first at 35 sagenes distance from it. It is 1 sagene thick, and has been followed for a distance of 75 sagenes. It is estimated to contain 2,250,000 pouds of coal. The third seam, 9 feet thick, is 50 sagenes from the hanging wall of the second.

The first Varlamovsk seam is situated on the southern declivity of the Kirchiaksk Mountains, lying on the left bank of the Kandoma, near the village of Kirchiaksk. The thickness of the seam is 1 sagene, and it dips at an angle of 18°. The seam has been followed for a distance of 210 sagenes; and is estimated to contain 5,515,000 pouds of coal. The second seam lies on the hanging wall of the first. Its thickness is 4½ feet, and it has been followed for a distance of 100 sagenes; it is estimated to contain 2,115,000 pouds. The Kirchiaksk seam lies on the northern side of the western end of the Kirchiaksk Mountains. It is up to 7 sagenes thick, and has a dip of 29°. On the northern declivity of the same mountain there are seven seams of coal, known by the name of the Ozernyi or lake seams, owing to their situation on Lake Kirchiak. All these seams form one series, lying in a schistose clay. They include one seam 4½ feet thick; two, 1 sagene thick; and three, 2 sagenes thick. They have not been followed up for more than 100 sagenes, and have been estimated to contain over 12½ million

pouds of coal. The Araldinsk seam outcrops at the bank of the River Aralda, which falls into the Kandoma on the right, opposite the village of Kirchiaksk. This seam is over 6 sagenes thick, and has a dip of 18°. It has been explored for 120 sagenes along the strike, and it is estimated to contain 18,000,000 pouds of coal. It is calculated that all the seams situated in the neighbourhood of the village of Kaltanak contain a store of over 65,000,000 pouds of coal.

Further in the eastern portion of the basin coal seams have been discovered in the neighbourhood of the town of Kouznetsk, on the banks of the River Toma, near the village of Artamonov, above the town, and below the villages of Iliusk and Shorokhova.

Exploratory workings have been carried on in the south-western extremity of the basin near the villages of Berezova and Kostenkova. The workings made near the village of Berezova showed that there the coal seams appear in the form of four separate series, at short distances from one another. The first series consists of four seams, from 2½ to 11½ feet thick. The second is composed of two seams 3½ and 7 feet thick. The third series includes eight seams from 2½ to 8½ feet thick, and lastly, the fourth series consists of four seams from 2½ to 5 sagenes thick. In exploring these seams four of the thickest beds were followed up for a distance of 70 to 2000 sagenes along the strike, and along the dip to the level of the River Berezovka only, and over 210 million pouds of coal were determined. Three seams of coal, one of which is 2½ sagenes thick, have been discovered to the east of the village of Berezova, on the banks of the River Kandalena. A whole series of seams closely resembling the four series of the Berezovsk veins, has been found at two versts distance to the north of the village of Kostenkova on the River Kozlovka. This series consists of nine seams from 3 feet to 4½ sagenes thicks. Four seams have been explored for a distance of about 400 sagenes, and are estimated to contain a store of 40½ million pouds of coal. In general the coal fields of the south-western extremity of the basin, near the villages of Berezovka and Kostenkova, contain a store of over 250,000,000 pouds of coal. The Maganak coal field has been found at 5 versts distance to the east of the village of Prokopievsk, to the north of Berezova, on the left side of the River Maganak. This deposit consists of one vein three sagenes thick. The coal from this seam gives a good coke, which has been successfully used in metallurgical operations.

As the above estimate of the stores of coal contained in the different seams only refers to the outcrop of those lying above the level of the river, and the lower levels of those veins were not included in the calculation, and as, moreover, in the majority of cases, the strike of the seams was only followed up for an inconsiderable distance, so there can be no doubt that the actual stores of coal in this southern portion of the basin must be many times greater than the above-cited figures, and this portion of the basin with its inexhaustible stores of fuel lying in close proximity with the richest deposits of magnetic iron ore, may surely have a great industrial future.

(To be continued.)

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. Samuel John Davey, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of February 28 (4 o'clock) as follows:—We have had a quiet market this week, without much change in prices. To-day market is steady, but inactive. Following are quotations:—Blue Hills, 1s. to 3s.; Carn Brea, ⅜ to ⅝; Cook's Kitchen, 1 to 1⅛; Dolcoath, 34½ to 35½; East Pool, 4⅝ to 5; Killifreth, 14s. to 16s.; South Condurrow, ¼ to ⅜; South Crofty, ⅛ to ¼; South Wheal Frances, ⅛ to ¼; Tincroft, 4⅝ to 5; West Kitty, 5½ to 5¾; Wheal Agar, ⅛ to ¼; Wheal Basset, ¾ to 1; Wheal Grenville, 10⅜ to 11; Polberro, ⅜ to 1.

Mr. Michael Williams Bawden, Mining and Assaying Offices, Liskeard, Cornwall, writes (February 28) as follows:—The mining market continues thoroughly depressed on the receding aspect of tin both for cash and forward delivery, with a further increase of stocks on hand. Closing prices:—Carn Brea, ⅜ to 1; Cook's Kitchen, 1 to 1⅛; Devon Consols, 1⅜ to 1½; Dolcoath, 34 to 34½; East Pool, 4½ to 4⅝; Killifreth, 16s. to 17s. 6d.; Levant, 3½ to 4; South Crofty, 6s. to 7s. 6d.; Tincroft, 4½ to 4⅝; Wheal Agar, 5s. to 6s.; Wheal Basset, ⅜ to ⅝; West Kitty, 5 to 5½; Wheal Grenville, 10⅜ to 11; Wheal Kitty, 1s. to 1s. 6d.

Messrs. Abbott and Wickett, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of Thursday, February 28:—A good business in Dolcoath this week at about £35. At the next meeting it is probable that the committee will submit a scheme for turning the company into a Limited one. Very little doing in other shares, and quotations nominal:—Blue Hills, ½ to ⅝; Carn Brea, ½ to ⅝; Cook's Kitchen, 1 to 1⅛; Dolcoath, 34½ to 35½; East Pool, 4½ to 5; Killifreth, 14s. to 16s.; Polberro, ⅜ to ½; South Condurrow, ⅜ to ½; South Crofty, ½ to ⅝; Tincroft, 4½ to 5; West Frances, ½ to ½; West Kitty, 5 to 5½; Wheal Agar, ½ to ⅝; Wheal Basset, ½ to 1; Wheal Grenville, 10 to 10½; Wheal Kitty, ⅛ to ¼. Tin, 60.

MANCHESTER.

Messrs. Joseph R. and W. P. Baines, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write February 28 (noon):—The past week has witnessed a few distinct reversals of prices in both directions in individual cases, and in one or two classes of rails. These, however, will, we think, be best recorded in daily detail, premising in a general way as follows:—Home rails are irregular, and in spite of traffic decreases being general, latest prices and tone since the settlement was commenced, seem fairly, if not distinctly, stronger. Americans have come in for but little business, and changes of prices on the week are all to lower figures, Louisvilles and New York Central standing out most prominently in this direction, but followed pretty closely by Milwaukees, Eries, and Union Pacifics. Canadians are irregular, Trunk issues being better on an improvement in traffic, but Pacifics have furnished the sensation of the week in rails, falling very smartly on the news of the passing of the dividend. With some little fluctuations, about the lower price, they finish with fall of $9⅛ on the week. Mexican Rails have been stronger, but their quotations only show changes in ordinary and first preference, and in these the advances are but fractional. Friday last was a very idle day, with prices all round rails showing no alteration, or, if at all, only about ⅛ at the outside. Lower rank investments keep being enquired for. Whilst little was doing, as usual, last Saturday showed an improvement in tone for home rails. The other departments of rails neglected as regards business, and quotations also. Monday being the day before carrying-over day (that is the general carrying-over day) found business very slow, with prices rather on the dwindle. In Canadians, Pacifics dropped heavily on the passing of their dividend. The drop in these on the day was 8⅝. Trunk issues were sympathetically easier and Americans also, the latter more than the former. Mexican rails, however, showed some improvement. Southern line traffics announced to-day; both big decreases. Tuesday was required for the most par for the settlement arrangements, and hence home rails were all but entirely neglected. In Canadians, Pacifics rallied a trifle from the previous day's close, and Trunk issues on a traffic, which was above expectations, gained ground to some extent, as also did Mexican rails from a similar cause. Canadian Pacifics again showed a big decrease of traffic. Yesterday, notwithstanding that home railway traffics were nearly all decreases (the Great Western with nearly 14,000 down being particularly notable), home rails firmed up a bit, with, however, very few dealings marked here. Canadians and Americans came in for little or no changes in price, and the few made were very small in amount. No changes in Mexican rails. This morning brought in no new feature, rails as a whole opening just at about last night's closing figures. Chathams, however, were stronger very early on. Canadians Pacifics were just the turn better than last figures of yesterday. Consols quote 3 16 down on the week. Colonial government bonds, &c., good, there being no declines, whilst the following are higher—viz., Natal Inscribed, 3½; Victoria Inscribed, 1½; New South Wales Inscribed and South Australian Registered, 1; each and New Zealand Inscribed, ½. Home corporation stocks, &c., do not furnish any changes in prices, and very little business doing. Foreigners are irregular, but declines both in number (to slight extent) and certainly in extent, distinctly outweigh the advances.—Higher: Argentine Five per Cent. ½, Brazilian Four and a-Half per Cent. ½, ditto Four per Cent. ⅛, Egypt Unified ⅜, and Turkish ⅛.—Lower: Italian Rentes 1½, Mexican Six per Cent 1½, Uruguay Three and a-Half per Cent. 1, Portuguese Three per Cent. ½, and Spanish Four per Cent. ½. Except for two or three concerns in which dealings have been repeated, the business from the miscellaneous sections of the market does not total up very well in number. Current prices have received some attention, but for the most part throughout the classes changes are irregular, and, except in a few isolated cases, small in amount.

Banks show very straggling business.—Higher: Manchester and County ½, Imperial Ottoman ½, and Mercantile of Lancashire ½.—Lower: Parrs ⅜, District ½ to ⅝, and Union of Manchester ½.

Insurance.—Hardly anything doing.—Higher: Manchester Fire 3-16, Boiler Insurance ½, and Sea 1-16.—Lower: Royal ½, London and Lancashire ½, and Reliance Marine 1-16.

Coal, Iron, &c.—Business small. Bolckows and Ribbws fractionally lower. Patent Nut and Bolt ½, and one or two others about ⅛ up.

Mines.—Tone better again. Mysores are ½ and Tintos ½ lower. Rest of changes on the higher side, and fairly numerous and distributed.

Cotton Spinning shares quite a "dead letter," save for, perhaps, half-a-dozen companies, which hold firm.

Miscellaneous.—Telegraph Construction, &c., 2, Rochdale Canal 1, Liverpool Gas A 13, Allsopp's Brewery 2½ to 3, and several others fractionally better. Declines neither numerous or of much moment as to extent of changes. Ship Canals steady on the week up to time of writing, but the half-yearly meeting is just now proceeding, so there may be some movement herein to record later.

Later (4 p.m.).—Tone better to-day in home rails, more particularly the southern lines. In Americans, which (with Canadians) have been flat. Louisvilles stand out with a further fall of about $1⅜. The Ship Canal meeting was held to-day, and immediately it was over prices fell away sharply. Ordinary from £2 18s. fell to 2½, but since have recovered to 2⅝, 2¾; Preference dropped from 3⅜ to 3 13-16, 3½, but they show no recovery at the close. The feeling of the shareholders present at the meeting seems to have been one of disappointment.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

Stirling.—Mr. J. Grant Maclean, Stockbroker and Ironbroker (February 28), writes:—During the past week there has not been much business doing. Trade reports, however, are a little more encouraging. The feature has been the demand at improving prices for the better class of African dividend-payers, Deep Levels, and land companies.

In shares of coal, iron, and steel companies there has been a moderate amount of business done. African coal are at 7s.; Marbella, 47s.; Niddrie, 43s.; Steel Company of Scotland, 36s.; and Stewart and Clydesdale, 7¾.

In shares of copper concerns there has not been much business doing. The price of the metal is lower, although the account is said to be oversold. Tharsis touched 88s. and Tinto 12½, but have both recovered a little. Arizona 14s., and Copiapo 33s. 6d.

In shares of gold and silver mines a fair amount of business has been done. Glencairn have improved on the prospect of a good return from the extra stamps and cyanide plant. The meeting of the May Consolidated will be held March 28. Sheba are slightly better on the announcement that the mine is free from water. The prices of the deep levels are generally higher, especially Nigel and Roodepoort, on amalgamation rumours. Mysore dull, although the balance dividend for 1894 of 2s. is rather better than expected. In Australian mines the principal dealings have been in Broken Hill from 36s. to 37s. 3d., and they are now 36s. 3d., ex February dividend. The usual dividend of 1s. is announced for March. The reports from Bonnie Dundee are encouraging. French Bob, Great Gold Zone, Lonora, and Zwartland Transvaal all wanted. African Gold Concessions are at 7s. 6d.; African Recovery, 26s.; Buffelsdoorn, 72s. 6d.; Balkis Kersteling, 2s. 6d. to 3s.; Blackett's Reward, 8s.; Balaghat, 3s. 9d.; Bayley's Reward, 10s.; Cœsus, 47s. 6d.; Caratal, 1s. 4½d.; Cassidy Hill, 10s.; Cassel, 13s.; Cashman's Reward, 12s. 6d.; Dickens Custer, 1s. 3d.; Day Dawn Block, 11s. 6d.; East Rand, 53s. 6d.; Frank Johnson, 17s. 9d.; Gravel, 4s. 3d.; Golconda, 20s. 6d.; Gwelo Syndicate, 8s. 9d.; Hauraki, 4s.; Johannesburg Investment, 55s.; Klerksdorp, 5s.; Knight's, 75s.; Londonderry, 25s.; Langlaagte United, 48s. 9d.; Lisbon Berlyn, 5s.; Mallina, 20s. 6d.; New Virginia, 4s.; Ottos Kopje, 6s. 6d.; Orion, 87s. 6d.; Primrose, 6 3-16; Pigg's Peak, 7s. 6d.; Pearl Central, 27s.; Randfontein, 24s.; Rothery Block, 12s. 6d.; St. Augustine, 7s. 9d.; Silver King, 2s. 6d.; Sutherland Reef, 22s.; Van Ryn, 5 5-16; Wolhuter, 6¾; and Wemmer, 8⅜.

In shares of miscellaneous companies the principal dealings have been in oil shares. Broxburn fell to 9½, and Young's to 31s. 6d. on a rumoured hitch in the agreement with the American company as regards Continental business; but it is believed this has been exaggerated, and the prices are better at 9⅝ and 36s.; Lawe's Chemical are at 7½; Nobel's Explosives, 14⅞; and White Lead, 4s.

EDINBURGH.

Messrs. Thomas Miller and Sons, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of Feb. 28:—The markets have been very quiet, especially that for home railway stocks, in which the alterations in prices are few and unimportant. In Canadians, Pacifics have had a heavy fall, but they show some recovery from the lowest prices reached, Grand Trunks rather better, Americans lower. In Banks, Unions have improved from 21 15-16 to 22. Bank of Scotland have declined from 336 to 335, Royal from 226 to 224. In insurance shares, British and Foreign Marine have improved from 24 1-16 to 24½, Standard Life from 64½ to 65½, English and Scottish Law Life from 11⅛ to 11 11-16, National Guarantee and Suretyship from 80s. to 81s. 6d., Commercial Union have declined from 36¼ to 36⅛. British South Africa shares have improved from 41s. to 42s. 3d. Edinburgh Lombard Investment have fallen from 5s. to 2s. 6d., Realisation and Debenture Corporation Founders from 45s. to 40s. Coal shares well supported. Arniston 5s. up at 26. Cowdenbeath 2s. 6d. up at 15⅞. In oils, Broxburn have declined from 10 to 9⅝, Young's from 38s. 3d. to 35s. 3d. Linlithgow have improved from 26s. to 26s. 6d. Distillers shares 3s. 9d. up at 17 7-16. The following are the latest prices of deposits of reconstructed Australian banks, viz.:—Australian Joint Stock 13s. 6d. per £, Bank of Victoria 16s., City of Melbourne 10s., Commercial Bank of Australia, 12s. 6d. to 14s. 6d., London Bank of Australia 16s. 6d., National Bank of Australia 17s., Queensland, 14s. 6d.

"POVERTY IN THE DITCH and the devil throwing stones at him." This was once a favourite toast in the days when heavy drinking and convivial meetings were commoner than they are now. It is a good toast, but unfortunately it is not often realised. As often as not, we are in the ditch, with poverty sitting complacently on our chest and the devil grinning hard-by. The fight for existence is keen, and we can only succeed in holding poverty at arm's length by keeping our heads cool, our nerves steady, and our frames healthy and vigorous. How are we to do this? There is only one sure way, my brothers. I speak in all seriousness when I say, use Holloway's Pills.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

West Australian Gold Fields.

The following circular has been issued to the shareholders of the Mount Margaret Reward Claim (Limited):—"I have to inform you that shares in the above company will be offered to shareholders of the West Australian Gold Fields (Limited), whose names are on the register on the evening of the 28th inst. The delay in not forming a separate company to take over this claim at an earlier date has been caused by the full report of Messrs. Bewick, Moreing, and Co. not coming to hand until recently, owing to the serious illness of their partner (Mr. Hooper) who examined the property. The development of the property has, however, been proceeded with in the interval and the necessary machinery has been ordered. — Mount Jackson claim: A separate company will be formed to acquire this claim shortly after the issue of the Mount Margaret Reward Claim (Limited). The order for the machinery has already been given. —White Feather Reward: The development of this property is proceeding most satisfactorily. The machinery is now being erected.—Hampton Plains Concession: You will have received post card giving particulars of an important discovery which has been made by one of this company's prospecting parties; the development of this claim will be proceeded with at once.—Vincent's Londonderry claim: This claim has been disposed of at a fair profit to a syndicate owning an adjacent claim.—Other properties: The company has acquired, or become interested in several additional properties since issue of circular No. 3, amongst which may be mentioned the Trenton Mine in the Murchison Gold Field and Hall's claims at Menzies' Find; these properties have been acquired in conjunction with the London and Western Australian Exploration Company and the Gold Estates of Australia (Limited), and will be offered for public subscription shortly by the Gold Estates of Australia (Limited). Specimens of gold quartz: In order to give shareholders an opportunity of judging of the different classes of quartz from various districts, specimens of stone from (1) Mount Margaret Reward claim, (2) Mount Jackson claim, (3) White Feather Reward claim, (4) Mawson's Reward claim, (5) Bailey's Reward claim, (6) Lady Shenton and Florence claims (Menzies' Find), and from sundry other properties, have been for some time past on exhibition at the company's office, and arrangements have now been made to exhibit specimens in the shop window of Mr. Finn, 7, St. Swithin's-lane.—Map of the West Australian Gold Fields: For the information of shareholders who do not know the relative positions of the various districts on the Coolgardie, Murchison, and Dundas Gold Fields, the managers is preparing a map showing all the latest discoveries. This map is being prepared from plans obtained from the Mines Department of Western Australia, and copies will be sold at a low price to the shareholders. The map will be ready at an early date, and an order form will be sent to each shareholder. In conclusion the directors have to state that they are thoroughly satisfied with the position of the company's affairs."

The Zapopan Mines.

A letter from the secretary to the shareholders, states:—"I have the pleasure to inform you that the directors have secured the services of Mr. J. C. Hillson as general and financial manager at the company's mines. Mr. Hillson proceeds at once to Australia to take up the position, and should arrive at the mines in about six weeks from the present date. He will visit Melbourne on his way out to select the new machinery which the board intends to erect. From the reports which the directors have received of Mr. Hillson, and from their personal interviews with him, they are convinced that they have secured a very valuable representative. Mr. Hillson's knowledge of the country extends over 17 years. He states that the company has one of the richest mines in the district, that there is no doubt as to the ore being there in sufficient quantity to keep 300 stamps going if erected, and that Mr. Woodyatt's estimate as to its great richness is in no way exaggerated. Mr. Roberts, one of the late owners, and a miner of upwards of 30 years practical experience, who is at present managing the mines, will continue in that capacity under Mr. Hillson."

The Witwatersrand Gold Mining Company (Knight's).

The following circular has been issued to the shareholders:—"Referring to our circular dated 24th January, we have just received advice by cable that the proposal to increase the capital of the company to £300,000 has been sanctioned by the shareholders at an extraordinary general meeting, held at Johannesburg on the 26th February. Certain modifications have been made, and the following are the conditions under which the 50,000 new shares will be issued:—To existing shareholders, *pro rata*, 30,000; to guarantors, to be taken up at once, 7500; to guarantors, to be taken during present year, without option, 12,500; total, 50,000."

— A dividend of 3d. per share has been declared by the Victoria Gold Mining Association (Charters Towers) payable 7th March, 1895.

— A third interim dividend of 10s. per share, free of income tax, has been declared by the Lewis Mining Investment Trust (Limited), payable on the 30th of March, 1895, to all shareholders inscribed on the company's register of members on or before the 28th February, 1895.

— The Ouro Preto Gold Mines of Brazil (Limited) have sold the gold obtained in the month of December, which realised £4638 0s. 5d.

— The directors of the Isle of Man Mining Company have declared an interim dividend of 1s. 6d. per share on the ordinary shares, and a half-year's interest on the preference shares at the rate of 7½ per cent. per annum.

— We are informed that the allotment letters, and letters of regret in connection with the issue of the new capital in the Austin Gold Mines (Limited) have been posted, and that the issue was applied for nearly three times over.

— On and after March 4th, the offices of the St. John del Rey Mining Company (Limited) will be at Finsbury House, Blomfield-street, E.C. The transfer-books will be closed from the 11th to 16th March inclusive.

— The Emerald (Reward) Gold Mining Company.—The office of this company has been removed from 4, Fenchurch-street, to 185, Gresham-house, Old Broad-street, and Mr. J. Jameson Truran has been appointed secretary.

— The directors of the Aladdin's Lamp Gold Mining Company (Limited), have declared a further interim dividend of 1s. per share, free of income-tax, payable on March 21. The transfer books will be closed from the 18th to the 21st March inclusive.

— The directors of the Wentworth Gold Fields Proprietary Company (Limited) have declared a further interim dividend of 3s. per share on the priority shares, free of income-tax, payable on April 5. The transfer books will be closed from the 26th March to the 5th April inclusive.

WESTRALIA'S GOLD OUTPUT.

The following table is taken from the *Government Gazette* of the 19th January last, giving the produce of the colony, entered for export from 1st January, 1886, to 31st December, 1894, and showing quantity and value* obtained from respective gold fields, &c.

Year.	Kimberley.		Pilbarra.		Yilgarn†.		Ashburton.		Murchison.		Dundas.		Totals.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.	Ozs. dwts. grs.	£ s. d.
1886	302 0 0	1,147 12 0	—	—	—	—	—	—	—	—	—	—	302 0 0	1,147 12 0
1887	4,873 0 0	18,517 8 0	—	—	—	—	—	—	—	—	—	—	4,873 0 0	18,517 8 0
1888	3,493 0 0	13,273 8 0	—	—	—	—	—	—	—	—	—	—	3,493 0 0	13,273 8 0
1889	2,464 0 0	9,363 4 0	11,170 0 0	42,446 0 0	1,853 10 0	7,062 6 0	—	—	—	—	—	—	15,492 10 0	58,871 10 0
1890	4,474 0 0	17,001 4 0	16,055 6 6	61,010 3 9	2,277 0 0	8,656 12 0	—	—	—	—	—	—	22,806 6 6	86,663 19 9
1891	2,699 12 8	10,258 10 10	11,875 0 0	45,125 0 0	17,833 5 23	48,766 10 8	838 14 10	2,187 2 9	2,664 8 16	7,844 16 11	—	—	30,511 1 9	115,182 1 2
1892	1,088 16 22	4,137 12 3	11,892 16 0	42,992 12 10	21,209 9 18	80,596 1 1	0 14 0	2 13 2	24,356 9 12	92,554 12 1	—	—	59,548 6 4	226,283 11 5
1893	1,662 13 23	6,317 9 0	11,698 10 0	44,454 6 0	75,744 10 23	287,829 5 8	467 14 22	1,777 8 6	21,210 8 22	80,599 13 11	147 19 11	562 5 11	110,890 18 5	421,385 9 2
1894	829 12 17	2,236 16 4	16,254 10 0	61,767 2 0	136,828 4 4	519,947 3 9	285 5 10	1,084 0 8	52,946 6 11	201,196 0 7	228 7 12	867 16 6	207,131 6 6	787,098 19 10
Total	21,504 15 22	82,098 4 5	79,946 2 6	303,795 4 7	250,761 0 10	952,863 19 2	1,592 8 18	6,051 5 3	100,577 13 13	382,195 3 6	376 6 23	1,430 2 5	454,548 8 6	1,728,423 19 8

* The official valuation is £1 16s. per ounce.

† Including for 1894, Coolgardie, viz., 105,329 ounces 16 dwts. 11 grains, of the value of £400,253 6s. 8d.

PARIS LETTER.

[FROM OUR OWN CORRESPONDENT.]

South African scrip.—French operations in London.—Gold mining in Siam.—Enterprise in Spain.—Crisis in the Nickel industry.

THE confidence of investors in the future of South African scrip has remained unshaken by the opinion that is gaining ground on the other side of the Channel—that the values of shares have been forced up to an unreasonable level. So far are investors from yielding to these appreciations, that they look upon them as an attempt at inducing holders to dispose of their shares to the advantage of English buyers, and they are more than ever resolved to keep them in hand so long as the market continues to maintain its present strength. One of the most curious features of the share market is that the main body of investors still show a preference for gilt-edged securities, and will have nothing to do with shares that are not quoted at a heavy premium. Some of the less timid buyers have certainly gone in of late for two or three of the newer shares, such as the Geldenhuis Estate and Simmer and Jack, but the lack of boldness with which they are taken up is seen in the fluctuations in the values of these shares. Except the latest introductions upon the market, which are now quoted at a rather lower figure than when first offered to buyers in this country, Rand mining scrip continues to be without much change, and so far as mines classed in the Robinson category are concerned, the position, if anything, continues to improve. Buyers have settled down to the conviction that, as a means of investment, these shares are worth buying up at any price, and they are only inclined to sell under pressure of circumstances independent of the market. But if the *rentier* is clinging tenaciously to a few gilt-edged shares, the more enterprising capitalist is giving increased attention to the actual development of the Rand Mines, and finds that the occupation of dealing in shares, financing concerns, and buying up and selling new properties is an exceedingly profitable one. To carry out this work in a satisfactory manner, the two or three companies that have lately been formed for dealing in South African mining shares have transferred the centre of their operations to London, where they can get information from the mines direct, and at first-hand, instead of losing much valuable time by its transmission to Paris. It is now sought to establish companies in the Metropolis upon a basis that will allow of their dealing with mining scrip at a moment's notice, and as plenty of capital is forthcoming for this enterprise there is likely soon to be a very large participation of French speculators in mining operations on the London Exchange. Possibly, the immediate effect of this activity in mining enterprise will be to place the Paris share market upon a more satisfactory basis than it is at present by removing the suspicion that clings to nearly all new mining enterprises.

The few favoured capitalists who are interested in the Watana Gold Mine, in Siam, are looking forward with increased hopefulness to the future of this property. The specimens of quartz sent to Paris contain an extraordinary percentage of the precious metal, and the assays made of the first samples a few months ago have been fully borne out by specimens received from Watana last week. Yet, notwithstanding the belief of capitalists that the property is one of exceptional richness, it has so far attracted comparatively little notice from the public. All the capital necessary for the preliminary operations was subscribed by a few well-known Parisian financiers, who lately sent out an engineer, M. Moreau, to report upon the value of the mine. It is expected that in a few days definite information will be forthcoming as to whether the new deposits are continuous veins, or merely pockets of auriferous quartz. The reports first sent home pointed to the existence of five or six veins of gold that were expected to prove as rich all through as the specimens extracted, but the general opinion of experts is that though the veins may exist, it is extremely probable that the specimens have been taken from isolated pockets that would very soon become exhausted. However this may be, the value of Watana shares has risen several points within the past week, and if the reports received from the mine are favourable they will soon be quoted at a very high premium.

The mineral resources of Spain have not received the attention of late that seems to be warranted by their vast extent and the ease with which they can be profitably exploited. Enterprise and capital have been confined almost entirely to the ironstone mines of Bilbao, and yet there are deposits of gold, silver, copper, and other metals that, if developed, would undoubtedly be a source of marvellous prosperity to the Peninsula. Of course, the heavy depreciation of copper has retarded new enterprise in the Sierra Morena, and other rich copper-yielding districts, but the enormous content of metal in the quartz, and the facility with which it can be worked and treated, would still allow of large profits being secured. For some months past efforts have been made to awaken Parisian capitalists to the possibilities of making money out of the Spanish metalliferous deposits, and principally in the working of certain auriferous properties that are said to be particularly rich in the precious metal. Arrangements have been in progress for some time past for forming a company in Paris with a view of engaging in the gold mining industry, and it is expected that all negotiations will be terminated very shortly. In the meantime, a fresh stimulus has been given to silver mining by the operations of the Plata Roja Mining Company—a concern that was formed under the auspices of Parisian financiers in November last, with a capital of 4½ million pesetas. This company has taken over two groups of silver mines situated at Guadalajara, in the Province of New Castille. The property is said to have given excellent results until some years ago, when a fault took place in the vein and operations were suspended. Since then a great deal of capital has been spent in prospecting for the lost vein, and it has been discovered at depths ranging from 300 to 400 metres. According to assays lately made the quartz contains 36 kilos. of silver to the ton, and it is asserted that the percentage is much higher according to the depth of the vein.

The nickel industry of New Caledonia is in an exceedingly unfortunate position, in spite of the efforts that have been made during the past year to save it from a crisis. The main cause of the disaster that is overtaking the industry is the competition of Canadian nickel, which can be mined more cheaply, and delivered on the seaboard ready for shipment to Europe at a much lower cost than the New Caledonian nickel. Consumers likewise show a decided preference for the Canadian metal on account of its superior quality, and the supplies placed upon the market are so considerable as to leave no room whatever for the nickel mined by the French company. An attempt was made last year to meet this competition by very largely increasing the production, in the hope that the larger sales would compensate for the lower rates. So far is this from being the case that the consumption has rapidly declined, with the result that stocks have grown enormously. Since 1889, the stocks in the hands of the Nickel Company have been increasing by leaps and bounds, and last year they reached the enormous value of 10,134,000 francs. At the same time, the price of nickel has proportionately declined. When the company was formed in 1880, the metal was sold at 9 francs the kilogramme, and after dropping to 8 francs, 6 francs, and 5 francs, it was at the beginning of last year no more than 4 francs. It is now impossible to get more than 3 francs 50 centimes the kilogramme. This figure is so far below the cost of production that the company is working at a heavy loss, and at the last meeting of shareholders the directors could hold out no better hope than that the company would still have to do its best against the competition of Canadian nickel. It seems, indeed, as if all the expedients for making ends meet have been exhausted, and the outlook is so unsatisfactory that the values of shares are dropping steadily.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

THE great sensation of the week has been the unauthorised publication of what purports to be a scheme for the conversion of the Dolcoath Cost-book Company into a Limited Liability concern. It is suggested that a capital of £300,000 in £1 shares would be the basis, of which the shareholders would receive *pro rata* to their present holdings—say, £40 a share, the bulk of the remainder to be introduced as new capital. The rumour has come as a surprise, and its publication at the present juncture has probably caused a flutter in the official dovecots. The suggestion, nevertheless, comes at an opportune moment, and the general idea is that there is "something in it." The details may not be accurate, but the fact that there has been no official denial of any kind, lends colour to the idea that some scheme of the kind is on the stocks, and that at the forthcoming meeting shareholders will be consulted. It is an open secret that affairs on the mine are in a serious condition. There will be a heavy loss this quarter, and there seems no prospect, with tin at its present price, of the mine doing much, at any rate, until the new piece of shaft from the 375 to the bottom—to take the place of the present unavailable shaft—is completed. Under the Limited Liability scheme the proposal, of course, would be to sink the new perpendicular shaft south, which we have frequently advocated as necessary for the proper development of Dolcoath, and which has been admitted, even by those most intimately connected with the mine, as the proper course to adopt if the money required was available.

CORNISH mine adventurers have hitherto been apparently strongly opposed to the introduction of the Limited system into the working of their best mines, in spite of the protests which have from time to time been made by capitalists outside the county who fight shy of the "unlimited" liability of the Cost-book system. The most prominent names connected with the industry seem now to be realising the fact that the mines are at present being starved for want of money, which prevents them obtaining the modern appliances which are absolutely necessary if operations are to be made remunerative. With a pioneer mine like Dolcoath taking up the question thoroughly, and entering boldly into a scheme of the kind suggested, the movement towards Limited Liability would receive a great stimulus—in fact, the beginning of the end of the Cost-book system would have arrived.

THE long-threatened catastrophe has come at Botallack. At a special meeting, last week, the manager reported that the mine was in a hopeless position, and it was decided—it is to be feared, merely as a matter of form—to offer the mine for sale as a going concern. With tin at its present price, there is small reason for hoping that the existing company will find any body of speculators rash enough to take their bad bargain off their hands. Yet there are those who still believe in Botallack, and stoutly maintain that, if vigorously worked on an extensive scale, she might be restored to her former leading position among the mines of the county. For years operations have been gradually curtailed, and latterly they have been confined to one corner of the very extensive sett—one of the largest in the parish. Botallack's near neighbour—Levant—is more productive than ever, and it is thought by many that if the two mines were worked with equal enterprise one would be every whit as productive as the other. Botallack would seem to offer a promising field for a strong Limited Liability company, with a capital of (say) £50,000 or £60,000. The name is still one to conjure with; it is not too much to say that it is known to a larger public outside Cornwall than that of any other Cornish mine.

CONTRARY to expectation there was a small loss shown at Levant instead of a small profit. This was disappointing to the shareholders, but it was some consolation to them to be spared the call, which is now an indispensable part of the business at most Cornish mine meetings. The sales of mineral during the quarter were very large, and the agents expect that the returns will be about the same next quarter. There was a rather amusing incident at the meeting. One of the oldest shareholders, rather disgusted with the unexpected result, offered on the spur of the moment to dispose of the whole of his shares for £5 each. He was rather surprised at being taken at his word, but would not back out of the verbal contract which he had made, and the purchase was ratified there and then.

THE LINING OF SHAFTS AND HEADINGS.—The costs of tubbing a shaft in the Grimburg Iron Mines, near Siegen, with channel-iron rings, according to the report of the Prussian Government on mining, was found to be only about 12 per cent. more than oak tubbing. During the sinking of shaft 3 of the Rheinpreussen Mine, near Homberg, three cracks from 100 to 500 millimetres (4 to 20 inches) wide showed themselves in the sinking tower, from 8 to 20 metres (5 to 11 fathoms) under water, and were filled up by divers with timber wedges and cement masonry. The cement was introduced through drawn iron tubes of 100 millimetres (4 inches) inside diameter, the lower ends of which were made tight against the inside of the tower by means of india-rubber packing. In some headings of the Saarbruck mines Heinitz and Dechen, subjected to unusual thrust from the measures, an experiment as to resistance was made by timbering with oak and pine of the same dimensions, side by side. Whereas after four months the oak props were broken in places; those of pine were found to be just as good as when they were put in.

WE have the pleasure of announcing the marriage of Mr. Bennett H. Brough, Secretary of the Iron and Steel Institute, to Miss Barbara Lloyd, daughter of the late Edward Lloyd, Esq., Barrister-at-law. The best man was Mr. H. G. Graves, of the Patent Office. The ceremony took place on Thursday, the 21st inst., at Christ Church, Lancaster Gate, in the presence of a large and distinguished gathering. The service was fully choral. A reception was subsequently held at the house of the bride's uncle, Major-General F. T. Lloyd, C.B., where the numerous and handsome wedding presents were on view. The honeymoon, we understand, is to be spent in North Italy.

We are informed that Cardiff Castle private cable advices announce important developments. Abundance of well water has been struck; 1200 gallons per diem is being produced, and can be increased. At the present rate can crush 40 tons per day in 24 hours.

COMPANIES AND LEGAL ANNOUNCEMENTS.

*** Advertisements are inserted in this column at the rate of 9d. per line with a minimum charge of 7s. 6d.

THE NUNDYDROOG COMPANY (LIMITED).

6 and 7, QUEEN STREET PLACE,
LONDON, E.C., *1st March*, 1895.

AT A MEETING OF THE DIRECTORS HELD THIS DAY, IT WAS RESOLVED—

"That (subject to Audit) a Balance Dividend for the year 1894 (free of Income Tax) of One Shilling and Sixpence per Share be, and is hereby declared, payable on the 26th day of March, 1895, to the Shareholders on the Books of the Company on the 6th instant, and that the Transfer Books be closed during the said 6th instant."

By order of the Board,
I. CROCKER, *Secretary*.

N.B.—This Dividend will make the sum distributed out of the profits for the year 1894, 3s. per share.

LANGLAAGTE ROYAL GOLD MINING COMPANY (LIMITED).

7, Lothbury, London, E.C.,
1st March, 1895.

NOTICE.

Increase of Capital. Issue of 30,000 Shares.

THE following cable is to hand from the Head Office, Johannesburg:—

"Increasing capital by £30,000 by the issue of 30,000 £1 shares, at £4 7s. 6d. each, new issue guaranteed at this price. Application to be made by Shareholders in proportion to holding at 7th March. Transfer books will be closed from 8th to 15th March inclusive."

This increase of capital has been decided upon to meet the increased expenditure necessary for the erection of a 60 stamp battery and the installation of a new rock-drilling plant, and to expedite the development of the property and enable the Company to resume the payment of dividends at an early date. This issue has been guaranteed at £4 7s. 6d., at which price it is now offered to shareholders *pro rata* to their holdings.

Shareholders have the right of applying for shares at the price of £4 7s. 6d. per share in the proportion of one new share for every five shares on the register on 7th March, 1895.

Applications for fractions of shares cannot be received, and no shares will be allotted in excess of the *pro rata* number.

Applications, with cheque, at the rate of £4 7s. 6d. per share, must be made not later than 16th March, on form to be obtained at the Company's offices, 7, Lothbury, E.C.

The Transfer Books of the Company will be closed from 8th to 15th March, inclusive.

THOMAS HONEY,
Secretary to London Agents.

C. PASS & SON (Limited), BRISTOL,
ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c. and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

H. E. BANDELL,
Frankfurt a. Main, Germany.

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Ten years experience in Europe and Twelve years in America.
Correspondence solicited.

LAMBERT'S WHARFAGE CO.,
PRINCE OF WALES DOCK, SWANSEA.
Ores, Mattes, Regulus, and Bars received and prepared for market. Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and Sampled, and Warrants issued against same.
N.B.—Warrants are on accepted list of London Metal Exchange.
Regular lines of steamers from America, Europe, &c.
Consign goods to Lambert's Cranes, Prince of Wales Dock, Swansea.

PACIFIC MINING AGENCY AND TRUST COMPANY.

A Corporation organised under the Laws of the State of California
CAPITAL STOCK, £50,000.
BOARD.
IRWIN C. STUMP (Chairman) Manager of the Estate of the late U.S. Senator Hearst.
IRVING M. SCOTT, Manager Union Iron Works.
JACOB H. NEFF, President California Miners' Association.
P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).
W. F. GOAD, Vice-President, Wells, Fargo, and Co.
D. M. BURNS, Capitalist.
R. C. CHAMBERS, Manager Ontario Mine, Utah.
WILLIAM C. RALSTON, Secretary (Secretary California Miners Association).
BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).
HEAD OFFICE — MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights ON COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.
It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate transaction.
The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.
The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.
It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work.
This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).
Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.
We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.
Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company. Abstracts of such reports with prices of mines will be furnished pon application.
California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abundant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.
This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "CHAPIN," San Francisco.

THE BUTE WORKS SUPPLY COMPANY,
133, BUTE DOCKS, CARDIFF.
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RAILWAY WAGONS (New and Second-hand) for Cash, Redemption Purchase, Simple Hire, or Tonnage Hire. 50 perfectly new, 50 only 10 months old, and 130 only three years old, all to Latest Regulations, now here ready for Lettering. A large number of other Wagons, now on tonnage hire, for Sale. Full particulars on application.

LIME WAGONS.—12 10-tonners, with covered tops, two side doors, and four roof doors, £32 10s. each at Cardiff.

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PORTABLE RAILWAY.—£9 18s. 9d. per 100 Yards of Railway, comprising 200 yards of new Steel Rails, 14 lbs. per yard, and 100 Iron Sleepers), 24 inches gauge.

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An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

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ALL OVER THE WORLD,
Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical, Railway and Mechanical Engineers, Railway Administrators, Manufacturers, &c., &c.
THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan; and its literary scope embraces the entire field indicated by its title. The International Exhibition of Mining and Metallurgy, Crystal Palace, 1890, and the Institution of Mining and Metallurgy, London, were initiated and established by the efforts of THE MINING JOURNAL.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage to any part of the United Kingdom, is £1 4s. Abroad, £1 8s. payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.

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*** ADVERTISEMENTS (which should in all cases be sent direct to THE MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C., until 9 p.m.

*** THE MINING JOURNAL, is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator or syndicate, and it is in no way connected with any share dealing agency. The position occupied and the views expressed by it are alike absolutely independent.

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LONDON: MARCH 2, 1895.

SPECULATION IN MINES.

DURING the past year we have frequently written upon the various phases in the history of a mining undertaking —from its cradle, rocked by the first prospector, through its youth in the hands of the promoter to its maturer age, under the direction of a board of gentlemen more or less capable of controlling its career. Originally, the person who invested his money in mining was called by the good old-fashioned term of "adventurer," and we are of opinion that this word, more than any other, applies to the *bona fide* mining shareholder. He has before him the written opinions of men conversant with the subject, who state that under certain conditions a fair return may be expected from the development of the undertaking, and then, weighing the risks and with his eyes wide open, he ventures to put a certain amount of money in the mine, and then, after allowing time for the execution of the preliminary works, he hopes to reap his reward in dividends. This is roughly the original idea of a mining shareholder, and it seems to us that a company composed of men of this class, who have put a sum of money into the business—which if the worst came to the worst, they could afford to lose without being financially crippled or ruined—would work with greater unity of spirit, and consequently with increased chances of success, than a company formed not of shareholders, but of speculators. In the former case, we have what may be termed commercial mining, undertaken in the same manner as any other branch of business, and we believe with as good an average prospect of success, and in the other, speculative mining, in which profit is looked for, not so much from the mine itself, but from operations on the market, which may too often be described as sheer gambling. Hence the difference we have pointed out between the original adventurer and the modern speculator.

When looking over the share register of a company we have sometimes been inclined to conjecture the reasons which have induced so many people in all ranks of life to combine together to carry out the business for which nominally they have entered into partnership. A few of them we notice have held their shares from the beginning, in spite of market fluctuations; but the greater number have dodged in and out in a manner closely allied to the variations in the tape quotations of the stock. These latter are the speculators, and they are of all ranks and conditions of life, from the young clerk, who has, so he imagines, received a valuable tip as to a possible rise, to the grave, elderly gentleman who does not think that his sacred calling is incompatible with operations on the Stock Exchange. Now, speculators may be divided into two classes: consisting of the inner ring, who are in the know, and who, holding, if we may borrow the expression, the trump cards in their hands, are tolerably certain as to what is going to take place; and the great outside public who, blindly ignorant of business of this sort, risk their money on a toss-up, and have themselves largely to blame if they lose it. It is useless to argue with people of this sort. They will tell you, with great earnestness, that they have had a straight tip from a cousin of theirs, whose uncle married a sister of the late amalgamator at the Great Gobang United, and from him they learn that the next clean-up will send the shares up with a jump. Upon the faith of this or some other similar report they put in the few pounds they have saved, only to find that the rumour is not true, and that their money is tied up just at the most awkward moment for themselves. The curious part is, however, that they do not blame their own recklessness, but fall foul of mining in general, and the directors of the Great Gobang in particular. The same spirit, more or less, pervades the mass of speculators, and is nourished by the facilities offered by certain unofficial outside brokers, who unblushingly advertise that £5 covers £500 stock, risk strictly limited, great success of our last syndicate, and who, in short, knew so well how to bait their trap that the unwary fall an easy prey, and awake from dreams of untold wealth to find their money gone and themselves poorer, but, we hope, wiser men. Our advice to them is to take well to heart the poem of their childhood relating to the adventures of the spider and the fly. Now, all this brings great discredit upon mining; and, in spite of it, we stoutly maintain that mining legitimately pursued upon commercial business-like lines, such as would rule in the conduct of any other industry, is a fair and honourable calling, and offers to those who enter seriously into it every probability of rewarding them handsomely for the labour and capital which they have embarked.

If we look back only for the last five years we see some marvellous results obtained from money invested in mining. The Transvaal, for example, has become one of the great gold-producers of the world, and the reported mineral wealth of other portions of South Africa has added a province to the empire, thanks to the courage and perseverance of a few men. An opportunity has thus been offered for the employment not only of unemployed money, but for men also; and what took place in Africa in 1889 and 1890 bids fair to be repeated with equal success in Australia at the present date. Day by day we see the birth of new mining companies—some with a golden spoon already in their mouths, others with more or less brilliant prospects of success; and while we are delighted to notice this new field for mining and its associated industries, we would advise intending shareholders to use ordinary business care and judgment in the selection of their investment, and then to embark in it more with the spirit of adventurers than that of speculators.

CONCENTRATION AND CYANIDE.

THE marvellous success of the cyanide process, as applied to the conglomerated "banket" beds of the Witwatersrand, with their widely-divided content of gold particles, has, perhaps, been responsible for a certain neglect of other gold mining methods on those fields. Now, however, that the development and improvement of the cyanide process have securely established the possibility of treating even very low grade ores at a profit, mine managers and chemists are beginning to consider whether its value may not be enhanced either in efficiency or economy, by introducing other methods of treatment into its operations. It is true that the percentage of extraction in the best planned plants is a very high one, and that the cost of the latest systems is hardly more than half that of earlier ones. But the cyanide treatment, *per se*, has so far proved itself incompetent to deal with the slimy residues from the amalgamation plates, of which, as Mr. L. PHILLIPS has recently reminded the mining world, 80,000 tons are accumulated monthly on the Rand. The introduction of electrolytic precipitation, as an aid to the cyanide filtering, has opened the way to the overcoming of this difficulty, and we believe that no less than half a million tons of accumulated slimes from the famous Robinson Mine—which may almost be regarded as the home of the cyanide process—are about to be experimentally treated by the Siemens and Halske system, under contract. The excellent re-

sults thus achieved should help to draw attention to the desirability of other additions to the cyanide process. First of all, concentration suggests itself as likely to prove a most valuable subsidiary agent. It must not be forgotten that the cyanide process is a most expensive one, and any new development, which would reduce its cost or increase its capacity, so as to allow of an increased production from existing plants, would be an important item towards dividend paying. Hitherto, concentration has been rather generally regarded in the Transvaal gold mining industry as a costly luxury. Only a few hundred tons of ore out of the many thousands produced monthly are concentrated; and practice in this department of metallurgy has been almost entirely confined to the use of the Frue vanner. German engineers, who are famous for their attention to concentrating systems and appliances, have done a good deal to upset this notion; and the Witwatersrand Chamber of Mines has been impelled to establish a committee of investigation into concentration, as a supplement to extraction by cyanogen. The report of this committee is, in no way, sensational, but it is of a character to arouse that spirit of honest and arduous research which has obtained such brilliant results in other directions on the Rand. At all events, it has shown that a great deal remains to be learned in the practice of concentration of Rand ores. It also seems to show the advisability of at least some system of rough concentration for the tailings before cyanide, so as to subject the coarser particles to longer treatment than the finer. Ordinary concentration has been found to give a considerable advantage in the percentage of gold extracted; but it appears to be too expensive to be worth adopting with, at all events, the poorer classes of the Rand tailings. But treatment by *spitzlute* has been tried with far more favourable results. This is exceedingly cheap, costing only 7d. per ton of coarse sands and concentrates. The product is found to be very susceptible to cyanide treatment, and it effects a considerable economy in the consumption of the chemical. It is now proposed to follow the process up by classifying the tailings into fine and coarse sands, and there is good reason to hope that effective service to the gold-mining industry will be done in this way. The concentrating appliances hitherto used on the Rand have been, as we have said, of the most primitive pattern. Now that managers show some disposition to consider the claims of the process, no doubt they will adopt the more efficient appliances which German metalliferous miners employ. We think it probable that there will be a large increase in the employment of concentration as an intermediate step between the settling tanks and the leaching process, and there is every reason to think that this will mean a good deal for the industry, more especially in the case of poor mines.

NOTES AND COMMENTS.

ON all sides we hear expressions of opinion as to the present unexampled position of the gold mining industry, and of the brilliant future awaiting it. All agree that the clouds are rolling by, and that the sun of prosperity is shining full upon us. In fact, the depression which has been hanging over us for so long a time, has now given way to enthusiasm, and everybody seems to be rejoicing at the prospects the industry has in store. Reports come to us almost daily from all all parts of the world evidencing the activity of gold mining, until we are almost convinced that one place is as good as another. The feature of this renewed energy is the opening up of many new fields, as well as the more vigorous development of the old. In California, for example, a fresh impetus has been given to the industry. One mine alone in that State—the Utica, in Calaveras county—has during the past year yielded a monthly average of $270,000. Montana, Idaho, and South Dakota are likewise all deeply stirred up on the question of a greater production of gold. Alaska is another fruitful field that has lately come into prominence as a gold producer. About 500 white miners were in the Yukon country last year, and more than twice that number is like to migrate there during the coming summer. New mines, again, have been opened up in various parts of Canada. In Australia, South Africa, India, Mexico, and British Guiana the production is steadily increasing, and is likely to keep climbing forward for years to come.

COMING to another part of the world, respecting the metalliferous wealth of which little is known, but about which there is much desire to know something—viz, Chota-Nagpore, in Bengal—the Calcutta correspondent of the Allahabad *Pioneer* gives us some hopeful particulars. He says that in spite of the prevalent opinion it is a mistake to suppose that all research in these fields is practically at an end, for much quiet, unostentatious exploring has been going on, notwithstanding the disappointments of 1890, and the day may not be far distant when solid results will, perhaps, be reaped by those who have not lost heart, and who continue to spend their money in the effort to trace out the exact location of the auriferous reefs in the districts. So many men dropped money heavily in the mania of 1890 that a large majority are prejudiced, and even scoff at the labours of the handful who continue to work in the field. Complaints are heard to the effect that private enterprise receives no encouragement from Government, although an expensive department of trained geologists is always at hand; any application to the authorities for the loan of a specialist seems to be rejected under the impression that it is only another wild scheme. This attitude on the part of the Government, it is remarked, might have been commendable during the mania five years ago, but it should be different at the present day, when only a very few companies and syndicates survive, and are doing the best they can in exploring, with limited resources and appliances, the most likely spots. Market rumours pointed to fairly encouraging discoveries on the property of the Western Patkoom Company a little time ago, while, more recently, the Thorumba Syndicate, that holds a lease from the Sonapet Company, has come upon fresh quartz formations in the centre of the valley, which are being diligently prospected, as they are "almost unmistakably auriferous." The reefs give indications of running from south-west to north-east through the whole Sonapet Valley; this valley is extremely oblong in shape, the east and west being the ends, while the sides on north and south stretch for about 15 miles. The Thorumba Syndicate has also been at work to the south of the valley, where the formation is different, though most important, iron ore and limestone abounding in immense quantities; the latter has been pronounced of superior quality, unequalled in India, and admirably suitable as a flux for smelting iron ore, while the ore itself is declared to be of a high class.

THE list of West Australian enterprises floated in the London market is rapidly augmenting, and in time may almost equal in magnitude the South African companies' list. It is, of course, certain—so far as forecasts of human affairs can be certain—that in the course of five or six years a fairly extensive shrinkage will take place; but, on the other hand, it is in the same way certain that a large number of these new-born enterprises will survive for long periods of years among the more prominent of the world's gold mines. It is curious to contrast the number and magnitude of the present groups of West Australian Mines, with the fact that six years ago it would have been difficult to enumerate six West Australian companies—with offices in London. The almost imperceptible growth of public attention in the westernmost of our Australian companies, the commencement, the progress with gathering force, and the culmination of the boom are matters belonging to history, and which will leave a distinct record behind upon the financial history of the Metropolis. For the rest, the dulness at present overspreading the West Australian market is not deemed, in the best-informed circles, at all likely to continue, and when the revival comes, it will probably be complete and full in measure.

THE Chairman of the Transvaal Gold Fields Company referred on Wednesday, with complacency wholly pardonable, to the extreme economy observed at the inception of the enterprise. The fraction of seven-eighths of 1 per cent. on the subscribed capital of the company is not a wasteful sum to be spent upon preliminary expenses, and might have been doubled or even trebled without exciting any very adverse criticism. With this before them the shareholders will have cause to repose full confidence in the economy of the board, and arguing collaterally in their judgments which concern other matters. Beyond this, the permanent officials of the company are evidently such as to have inspired the full confidence of the shareholders either by their antecedents or by their known integrity of purpose and administrative ability. So soon after the formation of the company and the commencement of operations it would be difficult to form any sound and reliable opinion as to the intrinsic merits of an undertaking; but this, at least, can be said, without reluctance or qualification—that up to the present indications have all been of a happy kind. It thus only remains to congratulate the shareholders upon the able character of the directorate and staff, and to express the hope that the realisation of their expectations may not long be delayed.

THE directors of the Carlyle Gold Mines argue favourably for their enterprise from its connection with the North Queensland Mining Agency. These latter own the adjoining mine, and because of their large interest in the Carlyle properties are prepared to crush their ore, while, at the same time, the latter have permanent rights over a lake situated some ¾ of a mile from the mine. The importance of this last provision is obvious. It is not necessary to hold with either of the extreme parties on the water question. There is probably a truthful medium between the absolute water famine of Western Australia spoken of by some, and the abundance of rivers imagined by others; as also between the absolute impossibility of working without a Niagara on the one hand, and the superfluousness of a good water supply on the other. In any case, the shareholders in the company named after the Chelsea sage are placed beyond the influences of this difficulty, and to this large extent are to be congratulated. Reports received latterly from the mine have been of a distinctly favourably character, while, as the Chairman remarked, "this is not an untried mine, but one that has been worked for over two years." There are, it appears, seven shafts sunk, and that should certainly be enough to test any mine.

RAND shares, after a brief period of depression, have wholly regained strength as the result of this week's carry-over. Confirmation is thus given to the prophetic utterances of several well-known members of the Stock Exchange, whose long experience has served to make them deeply versed in the meteorology of markets. Deep Levels continue to attract largely the popular favour and patronage, and a strongly marked feature of recent operations has been the tendency towards investment rather than speculation, and the consequent removal from the market of large parcels of shares. A vast extension of business has undoubtedly accrued from the West Australian boom. If magnitude of business were the sole criterion of judgment, the establishment of a West Australian section wholly dissociated from the miscellaneous market—a relationship which a broker, speaking at a recent meeting, with the candour and absence of reserve distinguishing his class, pronounced amid appreciatory smiles to be enough to damn any share—would appear justifiable. Perhaps the authorities of the House, with some of the wisdom of the serpent, are looking forward to a considerable shrinkage of West Australian business in the not distant future. There is no cynicism like the cynicism of City finance.

SIR GEORGE CAMPBELL'S speech from the chair at Thursday's meeting of the Rhodesia Mining and Finance Company was pithily worded, and of a satisfactory character. The circumstances attending the flotation of the company were of a distinctly hopeful type. All the shares were subscribed by the public, and the underwriter was thus discharged from his obligations. One or two facts in connection with the affair are distinctly promising. There is, first, the fact that the board is by no means a council of ornamental rather than practical gentlemen. Several of its members are thoroughly familiar with Matabeleland and the neighbouring territories, and have already rendered good service to the undertaking by extending its possessions, and consequently its scope, and by the introduction of new business, said to be proceeding satisfactorily. If the business alluded to is of so favourable a kind as the operation recently concluded in relation to the stands at Buluwayo, the board are to be congratulated upon the soundness of their judgment and the shareholders upon the shrewdness of their board. Some nine stands were recently acquired at Buluwayo, and devoted to building purposes, with the result that the rentals of three now let amount to 10 per cent. on the capital sunk in the whole nine. Should the directorate proceed in future transactions upon the same method, there will be little hazard in predicting future dividends for the shareholders.

OUR contemporary, the *Chamber of Commerce Journal*, we are glad to see, participates in our approval of the new Commercial Court, and in its current number sets out in full the notic which has been published at the High Court containing provision for the dispatch of commercial causes. This approval is all the more satisfactory since our contemporary is the recognised organ of the London Chamber of Commerce, which was responsible for the formation of the London Court of Arbitration, whose existence would not have been required, and will not be necessary any longer, if the new venture of the Judges is successful. Our contemporary gathers "that parties can go before the Judge, who will act as arbitrator, and himself decide the manner in which the difference can best be settled," and "the arbitration work will, consequently, be done according to the rules now in force, which give great discretion." There is, apparently, some misapprehension here. As was pointed out in our columns last week, Sir James Mathew, or other Judge, sitting as the Commercial Court, offers, to parties seeking his assistance, that which no Court of Arbitration can. He will not sit as an arbitrator whose jurisdiction is limited, and who may be liable to have his award set aside if he exceed the terms of his submission, but as a Judge of the High Court, with jurisdiction to deal with and decide the whole matter; and, if the parties agree that his decision in the cause or matter shall be final, as the published notice we have above mentioned says they may, he will not give his decision as an arbitrator with a liability to have it set aside because of excess of jurisdiction; but the decision will have a real and substantial finality about it, because, unless special leave can be obtained from the Judge himself or the Court of Appeal (and this, after such an undertaking or consent not to appeal, is very rarely granted) no appeal will be entertained or allowed.

AS fruitful of surprises as Pandora's box is the Welsh tin-plate trade of late. In fact, America seems to be putting the Welshmen on their mettle, and one suggestion follows another with unprecedented originality and speed. The latest move has been taken during the week, and the originator is Sir John Jenkins, the partner of the Mr. E. Rice Daniels, to whose scheme we have previously referred. Sir John—to whom we give full credit for endeavouring to do his best for Wales, connected though he is with a firm which also is manufacturing plates in America—issued circulars, as the result of which he secured an attendance of 16 masters, and 12 representatives of the men. He addressed them on the subject of American competition, urged union between capital and labour in face of a common danger, and finally proposed (so it is announced) to shut down one-third of the Welsh tin-plate mills, and raise prices to 10s. 6d. or 11s. per box. In this way he hoped that the Welsh trade would become more satisfactory. This is a very bold proposal, and the sub-committee who were appointed to formulate the scheme will have a task that will tax their utmost powers to get the majority of the trade to agree to it. Among others who supported the movement by their presence was Mr. J. H. Rogers, who is credited with fast becoming the leading maker in America.

ONE of the North Queensland papers published some time ago a cartoon that is, perhaps, remarkable rather for the political sentiment it reflects than for any high order of artistic merit. A venerable miner, long-bearded, and clad in boots that had seen long years of service, is represented as having come at last, after years of patient delving, upon the much-sought-after nugget, and as having his joy at this satisfactory consummation cut short by the arrival of the State finance officials with their demands for a high royalty. This is by no means an isolated instance of this particular complaint. More than once it has been said that there is a disposition on the part of the Colonial Governments to swoop down with unnecessary greed upon the hardly-won products of mining work. At the same time, while deprecating any undue opening of the State fiscal mouth, it must not be forgotten that the Government of the Colonies must be carried forward, and that this entails the expenditure of large sums of money. Mining, as one of the most important industries of these countries, must perforce share the burden. Those, however, among colonial politicians who deem that the miner is the sort of individual who can easily be made to support more than his part of the national expenditure will incur the responsibility of a great political mistake, which, in the fulness of time, may be brought rudely home to them.

THERE is sometimes occasion to protest against the extreme incompetency reflected in some of the speeches from the chair at mining and other meetings. As a body, the chairmen of companies are good speakers, having been chosen for the gift, and they are expected to exercise it to the best advantage. But now and again some three score of shareholders sit during the busiest

part of the day groaning under wearisome circumlocutions of pointless verbiage. It is nothing less than intolerable that shareholders, desiring simply to know something of the main facts of the company's position beyond what are set forth in the often very meagre report, should be subjected to the wearisome elaboration around non-essentials, which sometimes fills the hearers with wrath and gloom and dismay. If it be answered that a very bad speaker sometimes gets put into the chair because of the sheer force of his administrative ability, the rejoinder is not far to seek. There are pens and paper plentiful enough in this country, and respect for other people's time should lead these shrewd, but unoratorical spirits, to use them. No stigma attaches to such a proceeding; it is adopted by some of the best Chairmen in the City of London.

THE MINING MARKET.

Friday Evening.

A satisfactory carry-over.—Steady business among Kaffirs.—West Australians quieter.—Miscellaneous shares heavy.—A Rand boom at the close.

ALL the events of this week are overshadowed by the boom which has asserted itself among Kaffirs at the close. The carry-over on Monday interfered largely with the transaction of new business, which, consequently, was very restricted. The account was a large one, but not so considerable as several previous ones. Rates generally ruled easy, excepting on the lower-priced shares, where they were rather stiff. On Chartered the contango was only 1d. to 2d., Oceanas 2d. to 3d., Jagers 3d. to 9d., De Beers 9d.; gold shares generally from 5 to 7 per cent. There was brisk buying in some cases, and one or two of the larger-priced shares registered substantial improvements. In the West Australian and Miscellaneous departments business was rather dull, attention being monopolised by the settlement. The bulk of the business connected with the carry-over having been transacted on Monday, there remained little to interfere with the ordinary business of the succeeding day. A steady demand sprang up for the more solid South African shares, and there being but few upon the market a number of rises took place. Land shares and Diamonds were fully in sympathy with the general improvement. Only in the West Australian and Miscellaneous market was there a different tale to record. Here there was an almost complete lack of animation. Throughout Wednesday the Kaffir market was exceedingly firm and strong. Large enquiries were made for particular groups of the shares, and rises were consequently fairly numerous. The result of the account would appear to have been very beneficial and instrumental in strengthening to a considerable extent the prevailing market tone. Diamonds fully shared in the improved temper, but Lands, on the other hand, were not so firm. The animation noticed on Wednesday all over the markets, strengthened on the succeeding day into a boom. Comparisons have even been drawn between this and the last rush of business in the Kaffir market—with some qualifications, however. Rises were many in number and considerable in extent. At the close of the week affairs all through the House are looking very favourable—as if, in fact, the good time predicted before the last carry-over had finally come.

British Mines.

A good many Dolcoaths have changed hands at about £35. The report about the conversion of the company into a Limited one has been favourably received, but it is not probable that the scheme propounded in the papers on Monday is the actual one the committee have discussed. Still, it is probably a fair guess. —Risen: None.—Fallen: Carn Brea, 5s.; Dolcoath, 40s.; and Killifreth, 2s. 6d.

South African Shares.

Attention in the South African market was on Monday, for the most part, monopolised by the carry-over. Some business was, however, transacted in one or two of the more solid shares. Buffelsdoorns hardened to 3 7/16. Ferreiras were 1/16 better at 16 3/4. Rand mines and Simmers both rose 1/4, closing at 22 and 12 respectively. Knights hardened to 3 7/16. Crœsus Deep improved to 2 1/16. Roodepoort Deep remained firm, and further advanced to 2 1/16. Van Ryn, Wemmer, and Princess each rose 1/4, and advances of 1/16 occurred in Bantjes, George Goch, Heriot, Minerva, United Roodepoort, and Wolhuter. East Rands were fairly active, and hardened to 52s. Geldenhuis Estate, May, and Paarl Central were slightly better. On the other hand, a small set-back was occasioned in Afrikander, Jumpers, Robinson, Steyn Estate, Ginsberg, George and May, Randfontein, and Pigg's Peak. In Land shares Chartered rose to 42s. 4 1/2d. bid, while Bechuanalands improved to 32s. De Beers closed 1/16 down at 20 1/16, while Jagers were unchanged. A healthier and more animated state of affairs ruled on Tuesday. South African—more especially the heavily-priced shares—were distinctly in the ascendant. Wolhuters rose from 5 3/4 to 6 1/4, Glencairns rose to 4, and Roodepoort Deep at 2 3/8 and Evelyns at par, were much firmer. Rand Mines advanced to 22 1/8, Modders to 9 1/8, Cities to 18 1/16; but Simmers remained at 12. Heriot hardened to 8 1/16, Henry Nourse to 5 1/16, Meyer and Charlton to 6 1/16, Primrose to 5 1/16, Geldenhuis Deep to 7 1/4, Kleinfontein to 4 1/8, Jumpers to 5 1/16, Worcester to 4 7/16, Langlaagte Estate to over 4 7/16, Langlaagte Royal to 4 1/4, Gold Fields Deep to 4 7/16, Geldenhuis Estate to 6 7/16, Robinson to 8 7/16, Transvaal Gold to over 3 1/16, and Knight's to 3 5/16. In the Land section matters were livelier. Chartered closed at 42s. 6d., while Bechs. hardened to 32s. 6d. Diamonds were favourably disposed, De Beers closing at 20 7/16 and Jagers at 20 3/16. The Kaffir market was firm to an extraordinary degree on Wednesday. Large demands were made in some directions with a resultant hardening of prices. Ferriera were bought at 17 1/8, Heriots at 9 1/16, and Modders at 9 1/8. Salisburys hardened to 3 7/16. Wolhuters were again 6 1/4. Cities went up to 19 1/16, while Knight's rose to 3 1/4, but closed under 3 1/16. Rand Mines were in demand, and rose 3/8 to 23 1/4. Consolidated advanced 1/4 to 4 7/16; Crœsus Deep, 1/16 to 2 1/8; Geldenhuis Deep, 1/16 to 7 1/16; Gold Fields Deep, 1/8 to 4 7/16; Nigel Deep, 1/4 to 1 15/16; and Roodepoort Deep, 1/16 to 2 1/16. Meyer and Charlton, by a rise of 3/16, reached £7; and Kimberley Roodepoort went to 1 3/4. Durbans were 1/4 better at 7 1/16. Advances of 1/8 occurred in Aurora, Henry Nourse, and Nigel. Robinsons were 1/16 better at 8 1/4. Rises of 1/16 occurred in Crœsus, Eastleigh, George Goch, Jubilee, Jumpers, Kleinfontein, United Langlaagte, United Roodepoort, and Van Ryn. In the Land section Chartered rose to 43s., but closed at 42s. 3d. Among Diamonds, De Beers were 1/16 up at 20 1/8; while Jagers were quoted at 20 3/16. Something of the nature of a boom was in progress throughout Thursday in the Rand market. Rand Mines were 1/8 higher at 24 1/4. Cities rose to 19 1/4. Wolhuters were 1/4 better at 7. Large enquiries were made for Primrose, which were nearly at 6 1/4. Ferreiras continued in the ascendant at 17 1/8. Geldenhuis Deep rose 1/16, to 7 1/4. Consolidated Deep rose to 4 7/16, Gold Fields Deep to 4 7/16, Nigel Deep to 1 15/16, Roodepoort Deep to 3 1/4, Crœsus Deep to 2 1/16. Modder added 1/4 to 9 3/8. Heriots also improved to 9 3/8, Jubilees to 9 1/4, Kleinfonteins to 4 7/16, Robinsons to 8 1/4, Salisbury to 3 1/16, Wemmer to 8 1/16. Nigels were widely in demand, and advanced 3/16, to 6 1/4. Slight improvements occurred in Aurora, Block B, Crœsus, Eastleigh, Geldenhuis Main Reef, George and May, Ginsberg, Luipaard's Vlei, May, Metropolitan, Princess, Rietfontein, Sheba, Steyn Estate, Sutherland Reef, Transvaal Gold, United Roodepoort, and Southern Geldenhuis. Slight reactions were shown by Meyer and Charlton, Kimberley-Roodepoort, and Clewer Estate. Lands were quiet, but in the Diamond section De Beers advanced to 20 1/4, and Jagers to 20 1/4.

Risen: African Gold Concession, 6d.; Afrikander, 1s. 3d.; Alexandra Estates, 1s. 6d.; Aurora, 1s.; Aurora West, 1s, 6d.; Balkis Eersteling (allowing for dividend), 6d.; Balkis Lands, 9d.; Bantjes, 6s. 3d.; Bechuanaland, 2s.; Block B, 6d.; Buffelsdoorn, 3s. 9d.; Champ d'Or, 2s. 6d.; Chartered, 1s.; City and Suburban, 15s.; Clewer (allowing for dividend), 2s. 3d.; Consolidated Deep, 2s. 6d.; Crœsus Deep, 3s. 9d.; Crown, 2s. 6d. De Beers, 7s. 6d.; Durban, 5s.; Eastleigh, 1s. 6d.; East Rand, 1s. 6d.; Ferreira, 37s. 3d.; Frank Johnson, 1s. 6d.; Geldenhuis Deep, 15s.; Geldenhuis Estate, 10s.; Geldenhuis Main, 8s. 6d.; Geldenhuis Southern, 1s.; George Goch, 2s. 6d.; George and May, 5s.; Ginsberg, 2s.; Glencairn, 7s. 6d.; Gold Fields Deep, 6s. 3d.; Graskop, 3d.; Guy Fawkes, 4s.; Guy Fawkes (8s. paid), 3s.; Gwelo, 1s. 3d.; Henry Nourse, 5s.; Heriot, 10s.; Johannesburg Estate, 1s.; Johannesburg Investment, 1s. 3d.; Johannesburg Pioneer, 12s. 6d.; Jubilee, 7s. 6d.; Kleinfontein, 7s. 6d.; Klerksdorp, 1s. 3d.; Lisbon, 3d.; Luipaards, 1s.; May, 2s. 6d.; Mashonaland Agency, 2s. 6d.; Massi Kessi, 1s. 6d.; Salisbury, 10s.; Sheba, 1s. 6d.; Silati, 6d.; Simmer (allowing for dividend), 15s. 6d.; South African Gold Trust, 7s. 6d.; St. Augustine, 3d.; South Reef, 1s.; Transvaal Estate, 6d.; Transvaal Exploration, 5s.; United Langlaagte, 3s. 9d.; Van Ryn, 5s.; Witwatersrand (Knight's), 12s. 6d.; Wolhuter, 25s.; Worcester, 2s. 6d.—Fallen: Champ d'Or Deep, 6d.; Coetzeestroom, 6d.; Gold Fields of Mashonaland, 1s. 3d.; Joe's Reef, 1s,; Main Reef, 6d.; Steyne, 1s. 3d.; Transvaal Coal, 12s. 6d.; Transvaal Land (fully paid), 1s.

Miscellaneous Shares.

Beyond the settlement but little business was done on Monday in this market. Gold Fields, Hampton Plains, and White Feathers, however, improved. Associated, Big Blow, Great Boulder, Londonderry, and Mawson's were, on the other hand, slightly weaker. Miscellaneous shares were dull. Slight improvements took place in Spitzkop, Graskop, and Barrett. Victory, New Queen, and Day Dawn Block were better, but Brilliants were 1/16 lower, and Bonnie Dundee were rather off. St. Augustines were down to 7s. Ooregum were 1/16 lower, but the other Indian shares remained motionless. West Australians were dull on Tuesday; Londonderry lost 1/16, while Hampton Plains, Lady Loch, and Boulders were easier. Hardly anything was doing in the Miscellaneous section. West Australians were rather better on Wednesday. West Australian Gold Fields closed rather worse than 3/8, and Hampton Plains were buyers over 1 1/16. Big Blow and Lady Loch were firm, the former at 1/8 bid, and the latter 1/16 to 1/8 premium. Great Boulders closed better at 10s. 6d., and Sherlaws were 10s. 6d. buyers. Among Miscellaneous shares, Day Dawn Block were 9d higher at 11s. 6d., and Bonnie Dundee gained 9d. at 15s. 3d. Tolima "A" rose 1/4 to 7, Mysore 1/16 to 2 1/16, and Mysore Reefs 9d. to 6s. 9d. There was some effervescence among the cheaper West Australian shares on Thursday. Bayley's Reward were rather off at 10s. 3d.; but Coolgardie Syndicate (Sherlaw's) at one time rose to 12s. 6d., closing at 11s. 9d., or an advance of 1s. 3d. Golconda hardened to 19s. 9d., Austin to 1 3-32, and Associated Gold Mines to 1-32 prem. bid. Kinsella left off 1/16 higher at par. In the Miscellaneous market Broken Hill Proprietary recovered to some extent, as did also Mills' Day Dawn. Mount Morgan were in demand at 2 3/8, or 1/8 up, and Bonnie Dundee were bought at 16s.; but Baker's Creek fell 1s. 6d. to 1 1/4 ex div. Ooregum improved 1/16, leaving off at 2 1/16, and a rally of 1/8 in Rio Tinto raised the price to 12 3/4.

Risen: Aladdin, 1s. 3d.; Alaska, 5s.; Australasian, 6d.; Bonnie Dundee, 2s. 6d.; Broken Hill Proprietary, 1s. 3d.; Burma Ruby, 6d.; Cape Copper, 1s. 3d.; Copiapo, 1s 3d.; Day Dawn, 1s.; Don Pedro, 6d.; Golden Feather, 6d.; Golden Gate, 3d.; Gravel, 6d.; Hauraki, 3d.; Holcomb, 3d.; Kapanga, 6d.; Linares, 2s. 6d.; Mount Morgan, 2s. 6d.; Mysore (allowing for dividend), 2s. 6d.; Mysore Harnhalli, 3d.; Mysore Reef, 1s. 6d.; Mysore West, 6d.; Metropolitan, 2s. 6d.; Minerva, 6s. 3d.; Modderfontein, 7s. 6d.; Mozambique, 1s. 6d.; New Crœsus, 6s. 3d.; New Jagersfontein, 5s.; New Primrose, 10s.; Nigel, 12s. 6d.; Nigel Deep, 6s. 3d.; North Sheba, 9d.; Nourse Deep, 7s. 6d.; Oceana, 2s. 6d.; Orange Free State, 5s.; Orion, 5s.; Pardy, 6s. 3d.; Paarl, 2s. 6d.; Potchefstroom, 6d.; Princess, 3s. 9d.; Randfontein, 1s. 6d.; Rand Mines, £2 15s.; Rand Rhodesia, 2s; Robinson, 7s. 6d.; Roodepoort-Kimberley, 1s. 3d.; Roodepoort Deep, 15s.; Nine Reefs, 6d.; New Queen, 1s. 6d.; Tolima A, 5s.; Tolima B, 10s.; Wentworth Priority, 1s.; Wentworth Ordinary, 1s.—Fallen: Baker's Creek (allowing for dividend) 1s. 6d.; Balaghat, 3d.; Carrington, 3d.; Champion Reef, 1s. 3d., Colar Central, 3d.; Cumberland, 3d.; Day Dawn P.C., 3d.; De Lamar, 6d.; Dickens Custer, 3d.; Golden Leaf, 3d.; Harquahala, 6d.; New Belgium, 1s.; New Virginia, 3d.; Pigg's Peak, 6d.; Read's, 1s. 3d.; Pestarena, 6d.; Rio Tinto, 1s. 3d.; St. John del Rey, 6d.; Waihi, 2s. 6d.; West Argentine, 3d.; Yerrakonda, 3d.

Australia.

Risen: Coolgardie, 3s. 6d.; Great Boulder, 1s. 6d.; Hampton Land, 1s. 3d.; Kinsella, 1s. 3d.; London and Western Australia, 1s. 3d.; ditto Gold Fields, 2s. 6d.; Mainland Consolidated, 1s. 3d.—Fallen: Bayley, 6d.; Blacketts, 1s. 3d.; Londonderry, 1s. 3d.; Mawson, 2s. 6d.; West Australia Concession, 2s. 6d.; Zapopan, 3d.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—
CONSOLS, Wednesday, April 3, 1895.

STOCKS AND SHARES.

Ticket Days.	MARCH.	Account Days.
Wednesday, Mar. 13		Thursday, Mar. 14
Wednesday, Mar. 27		Thursday, Mar. 28

Merchandise Marks.—A conference of members of the London Chamber of Commerce has been summoned for Wednesday next at 2.30 p.m., to consider the subject of merchandise marks. The Council of the Chamber are desirous of ascertaining the present drift of commercial opinion in regard to the operation of the Merchandise Marks Acts, in view of the possibility of a new Select Committee being appointed, or of further legislation being submitted to Parliament. In trading circles much interest continues to be taken in these Acts, and it has been in some degree stimulated by the passing in the House of Commons of Colonel Howard Vincent's resolution in regard to prison-made goods. Sir Albert K. Rollit, M.P., as President of the Chamber, will take the chair.

We are officially informed that in spite of the protests of the London Committee of Directors, the office of the Companhia de Moçambique (Mozambique Company) has been removed, by order of the Portuguese and foreign directors from Broad-street House, E.C., to Sun-court, Cornhill, E.C.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ABBOTT'S.—The directors have received the following cablegram from Australia:—"Recent developments promise well; expect to start milling in July. Reported that alluvial deposits have been found in the neighbourhood."

AFRICAN GOLD CONCESSIONS AND DEVELOPMENT.—The following cablegram has been received from the engineer on the property:—"Making all the progress possible; in every way most satisfactory. Splendid alluvial; specimen of quartz and alluvial will be sent by next steamer."

ALADDIN'S LAMP.—The following cablegram has been received from the mine:—"Four weeks crushing. 358 tons of ore has been crushed, yielding 2100 ounces of gold. The 600 feet level has not come up to expectation. Good ore is still being found in the 500 feet level."

BAKER'S CREEK.—Result of crushing for fortnight ended February 22, 605 ounces retorted gold.

BROKEN HILL PROPRIETARY.—For the week ended the 21st inst. 8173 tons of ore were treated, yielding 771 tons of lead, containing 221,322 ounces silver; also 1506 tons treated by amalgamating and leaching plants, producing 14,551 ounces silver.

BAYLEY'S REWARD CLAIM.—The following cablegram, dated the 26th instant, has been received from the head office at Melbourne:—"180 ounces, 137 tons: four days; crushing stopped, clean boiler; resume to-night."

BAYLEY'S REWARD No. 1 SOUTH.—The following telegram, dated February 26, has been received from the head office at Melbourne:—"Crushing stopped; water is giving much trouble."

BONNIE DUNDEE.—The following telegram has been received from the managing director at Charters Towers:—"Have sunk on the underlie of the Victory Reef 26 feet, and raised 50 tons quartz, which I estimated to be of the same quality as the trial crushing. The reef averages 1 foot 6 inches in thickness." An office note states:—"Trial crushing referred to: 12 tons, yielded 27 ounces of gold."

BROKEN HILL PROPRIETARY.—For the week ending the 28th ult., 8071 tons of ore were treated, yielding 636 tons of lead, containing 207,297 ounces of silver; also 1122 tons treated by amalgamating and leaching plants, producing 28,980 ounces silver. The price of the shares in Melbourne is £1 16s. 6d. buyers.

CAPE WESTERN (Western Australia), Perth, February 26: This company has declared a dividend of 2s. 6d. per share, payable in March.

CARLYLE GOLD.—The directors of the Carlyle Gold Mines (Limited) announce receipt of the following cablegram from their local manager: "Carlyle. 200 tons; we are having quartz crushed; shall arrange to clean up; lode opening up well."

CROWN AND PHŒNIX.—Mr. Samuel James, of 3, Copthall Chambers, E.C., has received the following cablegram, dated Gympie, 23rd inst.:—"Crown and Phœnix crushed 450 tons, yielding 460 ounces of gold. Dividend declared, 6d. per share."

DAY DAWN BLOCK AND WYNDHAM.—The following cablegram from the general manager at Charters Towers has been received:—"The mill has been hung up for seven days owing to the floods. I do not intend to clean up until next week."

DAY DAWN P.C.—The following cablegram has been received from the manager at Charters Towers, giving the result of the crushing for the fortnight ended February 23:—"No. 1 shaft. 40 tons, 12 ounces.—No. 3 shaft. 150 tons, 147 ounces; tailings, 13 ounces; total, 172 ounces. The poor return from No. 3 shaft is due to the falling off in quality of stone from the upper stopes. There is a great improvement in the underlie; the reef averages 6 inches fair quality."

ELKHORN.—Bullion produced in the mill for the week ended February 23, 9700 ounces.

GLENROCK.—Premier Mine. Cable advice has been received to the effect that the Premier Mine, together with plant, machinery, and buildings, has been sold, under the order of the Court, to the Glenrock Company, and the entire group of mines are now vested in the name of the Glenrock Company.

GOLDEN AGE, MENZIES' FIND (Western Australia).—Messrs. Lewis, Robins and Co., of 59 and 60, Cornhill, E.C., have received the following cablegram, dated Coolgardie, the 26th inst.:—"Have discovered two new lodes, averaging 9 ounces to the ton. Main lode looking well. Good supply fresh water close to mine—130 feet."

GREAT SANDSTONE UNITED.—The following cablegram has been received from Melbourne, viz.:—"Have driven south 2 feet. A well-defined lode 3 feet. Good payable gold."

HAURAKI.—The directors have received the following telegram from the manager, viz:—"The shaft has been sunk during the week 10 feet. The reef shows gold freely. We have intersected a number of leaders in the 100 feet level, and a small, but well defined vein, showing free gold. Monthly return due next week."

ISLE OF MAN.—The secretary sold on Wednesday 100 tons of this company's ore at £8 12s. per ton.

KAPANGA.—The directors have received the following telegram from the manager, viz.:—"The crosscut at the 100 has been driven 20 feet (making 380 feet). There is nothing new to report from other parts of the mine."

KLERKSDORP GOLD AND DIAMOND.—The manager reports that the work of draining the mine is proceeding satisfactorily, and that he has had several good panningss from workings.

LANGLAAGTE ROYAL.—The following cable is to hand from the head office, Johannesburg: "Increasing capital by £30,000 by the issue of 30,000 £1 shares at £4 7s. 6d. each. New issue guaranteed at this price. Application to be made by shareholders in proportion to holding at March 7."—Secretarial note: This increase of capital has been decided upon to meet the increased expenditure necessary for the erection of a further 60 stamp battery and the installation of a new rock drilling plant, and to expedite the development of the property, and enable the company to resume the payment of dividends at an early date.

MALLINA.—The secretary of the Mallina Gold Mine (Limited) has received the following cable:—"Operations have been delayed by the rain; expect to start milling in or about a fortnight."

MOUNT CHARLOTTE NORTH.—The following cablegram has been received from the secretary, dated February 23:—"Developments opening up splendidly. On the 100 feet level average width of lode is 8 feet. Very rich in gold. Have not yet reached hanging-wall. Great excitement prevails."

MOUNT MORGAN.—The directors have received the following telegram from the head office, Rockhampton:—"We pay £25,000 on March 1st, being dividend of 6d. per share (free of dividend tax) for the month of February."

NERBUDDA COAL AND IRON.—The sales of coal for the month of January amount to 2453 tons

NEW CHUM (Murchison).—Mr. Samuel James, of 3, Copthall Chambers, E.C., has received the following cablegram, dated Perth, the 26th inst.:—"New Chum (Murchison): Dividend declared 2s. per share on account of purchase."

NEW ST. AUGUSTINE. — Cablegram received from the mine, dated February 27:—"2000 loads, 312 carats; two-thirds limestone.

NEW QUEEN.—The following cablegram has been received, dated Charters Towers, February 28:—"The workings show considerable improvement; footwall reef No. 4 level."

No. 7 NORTH EAST QUEEN.—The following report has been received from the mine, dated Charters Towers, 7th January:—"Owing to the poor returns recently obtained the tributors have discontinued working, and the directors decided to dispense with the manager's services. The Chairman has set two men to continue crosscutting through the lease to prospect it for other reefs, and that is the only work now in progress at the mine."

ORITA.—The following cablegram has been received from the superintendent, relating to run No. 84:—"We have cleaned up £400, the profit on which is £200."

OURO PRETO.—This company has received a cablegram from the mines, giving the return for the month of January as follows:—"3782 tons produced 37,550 grammes, equals 1207 ounces."

OTTO'S KOPJE.—Mr. Lisle cables on 25th inst.:—"All the plant started last Thursday. Small engine stopped on Friday, and on 26th inst. valve spindle broke; will be repaired at once. The small engine—like the large one supplied by Messrs. Davey Paxman and Co.—has to drive the deposit-creeper-conveyor, the pulsator plungers, the deposit elevators, and the centrifugal pumps, and until it is started again the plant cannot work. This, it can now be presumed, will only take a short time, and meanwhile, it is satisfactory to note that the plant generally is at last adjusted."

ORION.—Details of working for January:—Tons milled, 5330; stamps working, 40; number of days mill ran, 30; yield from plates, 1571·95 ounces of gold; tailings treated by cyanide, 3024 tons; yield of bullion from cyanide works, 1250·90 ounces.

ORION.—The following cablegram has this day been received from South Africa:—"Have declared a dividend of 10 per cent., payable to all shareholders registered on the 5th March."

PESTARENA UNITED.—Gold return for February 364 ounces, from 344 tons; equal to 1 ounce 1 dwt. 4 grains per ton.

PAARL CENTRAL.—The option over the unissued capital (30,000 shares), expiring June 27 next, has now been exercised, thus increasing the issued capital to £200,000.

QUEEN'S BIRTHDAY UNITED.—Mr. W. Barton, M.E., who has recently been appointed manager of the company's mines at Dunolly, cables:—"We have struck gold at the Belgium and Perseverance reefs on the surface. Am very pleased with the look of the mine. We have started crushing."

SAN SALVADOR SPANISH IRON ORE COMPANY.—The s.s. *Kirtle* sailed from Santander, on the 23rd instant, with a cargo of 1820 tons of this company's ore for Glasgow.

SHEBA.—The following cablegram has been received from the general manager for the month of February: 770 tons (2000lbs.) of ore crushed, yield 1943 ounces; 3000 tons (2000lbs.) of tailings treated, yield 2380 ounces; 17 tons (2000lbs.) concentrates (assay value), 122 ounces; total, 4445 ounces.

SOUTHERN CROSS.—A cablegram, dated Perth, February 26, states that this company has declared a dividend of 2s. 6d. per share, payable in March.

STAR OF THE EAST.—The directors have been advised by cable, through the Bank of Australia, that the property has been duly transferred to the company. They have secured the services of Mr. Dick as mine manager.

STRAITS DEVELOPMENT.—The following telegram has been received from the Chairman, Mr. E. Berdoe Wilkinson, Singapore, under date February 22, having reference to the recent discovery at Passoh:—"Samples are not satisfactory; only traces of gold and silver, but Palmerston mining expert reports further discovery, and writes: 'Little tried crushes handsomely.'"

SUTHERLAND REEF.—The following telegram has been received from the manager at the mine:—"Leydsdorp, February 22. Mill running well; crushing upwards of 65 tons per day."

TRENTON MINE (MURCHISON).—A cablegram has been received stating that the reef, where intersected by the vertical shaft at 195 feet, has been penetrated 2 feet 6 inches without reaching the footwall, and was showing coarse gold.

UNITED MEXICAN.—The directors have received the following telegram:—"San Cayetano. Gross returns for week ended February 16, $930; expenses for week ended February 16, $1290; loss, $360.—El Cubo. Gross returns for week ended February 16, $7510; expenses for week ended February 16, $6168; profit, $1342."

VICTORIA GOLD MINING ASSOCIATION.—Mr. Samuel James, of 3, Copthall Chambers, E.C., has received the following cablegram, dated Charters Towers, the 23rd inst.:—"Victoria Gold Mining Association. Crushed 55 tons, yielding 523 ounces of gold. Dividend declared, 3d. per share. This is from the new reef. 289 tons crushed yielded 1105 ounces gold."

WENTWORTH EXTENSION.—Report, dated January 19:—"South-east drive from prospecting shaft No. 2 in 127 feet. Progress for the week, 20 feet; quartz vein continues 2 feet wide; without change."

WHITE FEATHER REWARD. — A cablegram to hand, dated Perth, February 28, states that:—"The main shaft tenders for the sinking of which were accepted early in January last, has now reached a depth of 150 feet, where water has been struck. This is the third shaft in which water has been struck on the property of the White Feather Reward Claim (Limited), and must be good news to all interested in the White Feather district. The machinery is now being erected."

THE SALT UNION (LIMITED).—The sixth ordinary general meeting of the Salt Union (Limited), was held on Wednesday at Winchester House, Old Broad-street, E.C. The Hon. Lionel Ashley presided, and, in moving the adoption of the report and accounts, said that the sales of salt for 1894 amounted to £1,284,000 tons, against 1,240,000 tons in 1893, an increase of about 3½ per cent. The increase would have been greater if it had not been for the depression in the large manufacturing industries of Lancashire and elsewhere. The volume of the export trade had not been unsatisfactory, the tonnage being 80,000 more than in 1893, an increase of 16 per cent. One of the results of the trading was that the figures for 1894 were the first in the history of the Union to show an expansion of business. With regard to Mr. Corbett's agency, which was taken over on July 1, the company had made profits at the rate of 13 per cent. per annum on the purchase price. It had been found necessary to realise about £62,000 of the investments in order to complete the purchase of various properties. The gross profit for the year was about £20,000 less than in 1893, notwithstanding that 44,000 additional tons were disposed of, the price of salt having fallen in 1894 from the 1893 level. The Hon. C. W. Mills seconded the motion for the adoption of the report and accounts, which was carried. A resolution was also passed authorising the creation of £250,000 of 4½ per cent. "B" debenture stock.

CORRESPONDENCE.

** It is to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.*

SOUTH AUSTRALIA AS A COMING FIELD.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—In last week's issue of your Journal you had an article on "New Fields for Gold Mining." I read this very carefully, and noted you had entirely omitted to make any reference to South Australia. As I have, for nearly 16 years now, watched closely the ups and down of gold mining in Australia, both during my residence there, and whilst away, I should like the public to know that South Australia is, in my opinion, a field well worthy of attention, and will be, before long, one of our largest gold-producing colonies. The work that has been done there has been done quietly, and, as yet, the results are very little known on the London market. What has been achieved though, during the last five years, points very clearly to the fact that the lodes in South Australia, which are of any value at all, will carry payable gold to a great depth, and are quite on a par with New South Wales as regards the possibilities of deep level mining. I quite agree with your remarks on New South Wales. There is an immense tract of gold-bearing country there, which has simply been scratched over, and I could point out reefs there, large and well defined, which have been abandoned by poor prospectors to try their luck at a fresh alluvial "rush," simply because they would not pan out more than 1½ ounce to the ton. I certainly think that there is any amount of scope for the legitimate employment of British capital on Australian gold fields, and more especially in South Australia, instead of squandering it in uncertain South American ventures, and buying up the odds-and-ends of United States mines that they do not think worth keeping themselves, but consider good enough to palm off on a Britisher. I would certainly say, let our money go in mining where our flag flies, and we will benefit ourselves personally, and enrich our nation.—Yours truly,

February 27, 1895. AUSTRALASIA.

TIN TICKETING.

A TICKETING for tin ores was held at Tabb's Hotel, Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

	Tons	cwts.	Per ton.		Value.	
Wheal Grenville a	21	0	£36	17 6	£774	7 6
do b	16	0	37	10 0	600	0 0
Tincroft	16	0	30	15 0	492	0 0
do	15	0	31	0 0	465	0 0
do	3	0	23	12 6	70	17 6
Carn Brea No. 1	16	0	30	12 6	490	0 0
do No. 1a	16	0	31	0 0	496	0 0
do No. 2	1	0	23	0 0	23	0 0
Dolcoath No. 1	16	0	36	12 6	586	0 0
do No. 1a	16	0	37	0 0	592	0 0
East Pool a	13	10	32	7 6	437	1 3
do b	15	10	32	7 6	501	16 3
do No. 2	2	0	14	15 0	29	10 0
South Frances No. 1	11	0	36	15 0	404	5 0
do No. 1a	10	0	36	17 6	368	15 0
West Frances	13	0	35	2 6	456	12 6
West Kitty	13	0	37	7 6	485	17 6
Wheal Agar	9	0	32	12 6	293	12 6
Phœnix United	9	0	36	12 6	329	12 6
South Condurrow	7	0	37	17 6	265	2 6
Killifreth	7	0	35	5 0	246	15 0
	246	0			£8408	5 0

Average price per ton £34 3s. 7d.

AVERAGE PRICES PER TON.

Nov. 20	£37 12 4	Jan. 15	£33 12 11
Dec. 4	35 10 10	Jan. 29	35 6 6
Dec. 18	35 9 5	Feb. 12	34 5 6
Jan. 1	33 0 2	Feb. 26	34 3 7

SALE OF COPPER ORE AT REDRUTH.—February 21:—

	Tons.	£	s.	d.
Levant	654	2321	10	0
Devon Great Consols	280	514	2	0
East Pool	91	93	6	0
Tincroft	80	264	12	0
Devon Gawton Company (Ltd.)	50	10	0	0
Olds' Ore	5	17	17	6
Penberthy's Ore	1	15	0	0
	1161	£3236	8	0

Fine copper 149 tons 9 cwts.; average produce 9⅞; standard £56 3s.; price per ton £2 16s.; standard fallen £1.

LEVANT'S SALES.

Tons.	Price. £	s.	d.	Tons.	Price. £	s.	d.
140	3	7	0	100	3	5	0
103	3	7	0	99	3	4	6
102	3	6	0	9	21	15	0
101	3	6	0				

SAN PATRICIO NITRATE COMPANY (LIMITED).—At the statutory meeting, held on Thursday, at the offices, Leadenhall Buildings, Mr. H. W. Lowe (the Chairman) said that the directors had every confidence in the undertaking, and believed that the promises held out in the prospectus would be fulfilled. At present, however, there were a few difficulties to contend against, in consequence of a dispute which had arisen between one of the vendors resident in Chili, and his representative in this country, with reference to the contract mentioned in the prospectus. The difficulties, it was believed, were accommodating themselves.

SWANSEA TIN PLATE TRADE.—At Swansea, on Thursday, a meeting of the newly formed Tin-plate Manufacturing Board of Control was held, and it was decided that the output of 340 mills out of a total of 515 should be assimilated to the demand. This means that they will work two-thirds of the present time, and the make be decreased to the extent of one-third, or 576 boxes per week, by each mill, and no mill to finish before 8 a.m. on Saturday. Out of 515 mills in the district, 397 are under the control of the new board.

EXPLOSIONS IN COAL MINES.—The Home Secretary informed Mr. John Ellis, in the House, on Thursday, that he had prepared a Bill dealing with shot-firing in dusty mines, and the precaution necessary to be taken. The recommendations of the Royal Commission on Explosions from Coal Dust in Mines were adopted in framing the Bill, and he hoped to introduce it at an early date.

CAPE GOLD EXPORT.—The *Norman* left Cape Town, February 28, with gold for Europe to the value of £120,000.

— Letters of allotment in BAYLEY'S No. 2 SOUTH GOLD MINING COMPANY (LIMITED) have been posted.

THE AUSTRALIA (LIMITED).—The first batch of letters of allotment and regret have been posted.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, MARCH 1.

Copper.

THE week opened with considerable sales, partly realisations partly carrying, and the effect was a decline in the values of G.M.B.'s from £39 5s. to £38 17s. 6d. s.c., and from £39 12s. 6d to £39 5s. three months on Monday. The business done was of large dimensions amounting to about 1600 tons. On Tuesday, Wednesday and Thursday we had quiet markets, the total turnover for the three days only reaching 1150 tons, whilst values remained very steady at £39 to £39 1s. 3d. s.c., and £39 6s. 3d. to £39 7s. 6d. three months. To-day, 500 tons changed hands at £39 10s. to £39 8s. 9d. three months, and £39 1s. 3d. and £39 2s. 6d. s.c. The close is firm at £39 2s. 6d. to £39 3s. 9d. s.c., and £39 10s. to £39 11s. three months. The statistics just published for the end of February reveal an improvement of over 500 tons for the last fortnight. There is very little outside speculation going on just now in copper, whilst on the other hand considerable pressure to sell is being exerted by America, so that notwithstanding the large transactions which have taken place, all sorts of refined copper are lower, although G.M.B. values have somewhat recovered from the lowest, assisted by the said improvement in statistics, whilst the shipments from America are also reported to be moderate.

Tin.

The market opened quiet at £59 15s. s.c. Straits, and began to decline slowly, £59 5s. being accepted both on Tuesday and Wednesday for spot. Transactions were on a moderate scale, viz.: about 150 tons on Monday, 150 tons on Tuesday and 260 tons on Wednesday. The latter day witnessed a rally to £59 13s. 9d., s.c., and £60 2s. 6d. three months, and the latter position, being in good demand, the contango increased to about 7s. 6d. per ton. Yesterday 125 tons changed hands at still better prices, s.c., finally touching £60, and three months £60 7s. 6d., and to-day, after business up to £60 6s. 3d., and £60 15s. three months, we close firm at £60 5s., s.c., and £60 12s. 6d. three months. The statistics of this article show an improvement of about 500 tons in the visible supply for February. In the Dutch market Billiton opened at 36 fl. spot, and, after declining to 35¾, improved to 36 fl., the closing value on Friday morning. Banca was simultaneously quoted at 36¼ fl.

Lead

is quiet, and practically unchanged at £9 10s. to £9 11s. 3d. soft foreign, and £9 12s. 6d. English.

Spelter

closes firmer at £13 13s. 9d. to £13 15s. ordinaries, and £14 to £14 5s. specials.

Antimony

is quiet at £32.

Quicksilver.

remains steady at £6 10s. firsts, and £6 9s. seconds.

The following are to-night's (March 1) prices of metals:—

	£	s.	d.	£	s.	d.
Copper.						
Tough cake and ingot	42	0	0	42	10	0
Best selected	42	10	0	43	0	0
Sheets and sheathing	53	0	0	53	10	0
Flat bottoms	53	0	0	53	10	0
Chili bars, spot, & 3 months respectively	39	2	6	39	10	0
Good merchantable, spot, & 3 months respectively						
Copper tubes, seamless	—			0	0	7
Alloys.						
BRASS: Wire	—			0	0	5
" Tubes (solid drawn)	—			0	0	5
" Sheets	—			0	0	5
PHOSPHOR BRONZE: Alloys II.	—			78	0	0
" " III. or	—			81	0	0
" " VII. } Cog Wheel Brand	—			83	0	0
" " XI.	—			78	0	0
" " Vulcan brand A1	—			72	0	0
DURO METAL	—			73	0	0
BULL'S METAL	—			65	0	0
Ferrobronze (Vivian's).						
Ingots per lb.	0	0	5½			
Ordinary sheets, plates, bolts and bars	0	0	6½			
Screw bolts and nuts	0	0	8			
Pump rods, plain	0	0	7			
" finished	0	0	10			
DELTA METAL: No. 4 (per ton)	—					
" Sheets and plates (per lb.)	—					
" Bars, round, square, flat (per lb.)	—					
" " hexagon (per lb.)	—					
Tin.						
English, ingots, f.o.b.	61	0	0	61	10	0
" bars	65	0	0	65	10	0
" refined	66	0	0	66	10	0
Straits, spot and 3 months respectively	60	5	0	60	12	6
Australian spot, and three months respectively	60	10	0	60	17	6
Banca " (in Holland)	60	17	6	61	0	0
TIN PLATES: Charcoal, best quality per box	0	12	0	0	14	0
" " ordinary	0	10	6	0	11	6
" Coke, best quality	0	9	6	0	10	0
" " ordinary	0	9	0	0	9	1½

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.						
Pig, G.M.B., f.o.b., Clyde, spot	—			2	2	0½
" Scotch pig, No. 1 Gartsherrie	—			2	10	0
" " Coltness	—			2	13	0
" " Clyde	—			2	8	6
" " Govan	—			2	5	0
Bars, Welsh, f.o.b. Wales	—			4	17	6
Plates " "	—			5	12	6
Bars, Staffordshire, at works	—			4	17	6
Sheets " "	—			6	5	0
Plates " "	—			5	7	6
Hoops "	—			5	12	6
Ship plates, Middlesborough	—			4	12	6
STEEL: English spring	—			10	0	0
" " cast	—			42	0	0
" Rails at works, according to section	3	10	0	4	15	0
Lead.						
Spanish or soft foreign	9	10	0	9	11	3
English pig, common	—			9	12	6
" L.B.	—			10	5	0
" sheet	—			10	15	0
" bar lead	—			10	15	0
" pipe	—			11	5	0
" red	—			12	0	0
" white	—			13	5	0
" patent shot	—			14	0	0
Spelter.						
Silesian ordinary brands	13	13	9	13	15	0
" special brands	14	0	0	14	5	0
English Swansea	14	12	6	14	15	0
Sheet Zinc	17	7	6	17	10	0
Antimony.						
Antimony	—			32	0	0
Quicksilver.						
Flasks, 75 lbs. warrants	6	9	0	6	10	0
Manganese. per unit.						
Ore, c.i.f., U.K. ports	0	0	10½	0	0	11
1st quality, 50 per cent. and upwards	0	0	9	0	0	10
2nd " 47 per cent. to 50 per cent.	0	0	8	0	0	9
3rd " 40 " 47 per cent.	0	0	8	0	0	8
Aluminium. Per lb.						
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	0	1	7			
do do (1 ton lots)	0	1	6			
Nickel.						
98-99 per cent. guarantee	0	1	3	0	1	4

— At a meeting of the directors of the NUNDYDROOG COMPANY held yesterday (March 1) it was resolved: "That, subject to audit, a balance dividend for the year 1894, free of income tax, of 1s. 6d. per share be, and is hereby declared, payable on the 26th day of March, to the shareholders on the books of the company on the 6th inst., and that the transfer books be closed during the 6th inst." N.B.—This dividend will make the sum distributed out of the profits for the year 1894 3s. per share.

— The transfer books of the GELDENHUIS DEEP (LIMITED) will be closed from the 4th to the 9th of March, both days inclusive, for the purpose of issuing 15,000 of the reserve shares.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles: ‡ in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and †, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par. £ s.	Latest Dividend	Called up Per Share. £ s. d.	Amount of Stock or No. of Shares Issued	Situation of Mine.	Head Office
Blue Hills ...CT	2/6 5/-	2/6	*	2/- May,'81	5 15 6	5,353	Cornwall	Camborne.
Botallack ...T	—	—	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea ...T	10/- 20/-	10/-	*	2/6 Dec.,'93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..T	15/- 25/-	15/-	*	—	35 15 1[illegible]	4,900	Cornwall	Camborne.
Devon Gawton CA	par ½ pm.	p.½p.m	1 0	—	0 12 6	25,000	Near Tavistock	8, Finsbury circus.
Devon Gt Cons. CA	1½ 1¾	1½	5 0	3/- Nov.'94	2 0 0	10,240	Devon	8, Finsbury circus.
Dolcoath ...T	34 35	36	*	12/6 Apr.'94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls CTM	—	—	0 5	—	0 2 0	61,856	Cornwall	Dashwood House.
East Pool ...AT	4½ 5	4½	*	1/6 Sept,'94	0 9 9	6,400	Cornwall	Illogan.
Gawton ...CA	—	—	2 10	—	2 7 0	12,000	Devon	20, Great St. Helens.
Great Laxey ...L	1½ 2	1½	4 0	5/- Apr.,'92	4 0 0	15,000	Isle of Man	Douglas, Isle of Man.
Green Hurth ...L	1/6	1/6	1 0	-/6 June '89	0 19 0	32,000	Cumberland	Newcastle.
Halkyn ...L	—	—	1 0	2/- Dec.'94	1 0 0	10,000	Flintshire	Chester.
Hexworthy ...T	—	—	1 0	—	1 0 0	14,634	Devon	6, Queen-street-place
Isle of Man ...L	—	—	5 0	1/6 Dec. 94	5 0 0	14,000	Isle of Man	Chester.
Killifreth ...T	12/6 17/6	15/-	*	1/6 Nov.,'94	5 11 6	6,000	Cornwall	Truro.
Leadhills ...L	15/- 20/-	15/-	6 0	3/- Sep.'92	6 0 0	20,000	Lanarkshire	30, Finsbury-circus.
Levant ...CT	—	4	*	4/- Nov.,'94	11 9 6	2,500	Cornwall	Penzance.
Lovell ...T	—	—	*	1/3 Nov.,'91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Minera ...L	—	—	5 0	5/6 Mar.'90	5 0 0	9,000	Denbighshire.	Minera, N. Wales.
Nenthead&Tudie LZ	3/6	3/6	1 0	6% Feb.,'91	0 18 0	48,8 5	Northumberld	Newcastle-on-Tyne.
New Cooks Kitn. TC	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera	—	—	1 0	1/- Oct.,'92	1 0 0	30,000	North Wales	6 Queen-street-place.
Parc ...LZ	—	—	1 0	—	1 0 0	5,000	Llanrwst	Billiter sq. buildings
Phoenix United TC	1/6 2/-	1/6	*	1/- Mar.'90	7 4 6	10,665	Cornwall	Liskeard.
Polberro ...T	12/6 17/6	12/6	*	—	3 7 9	18,000	Cornwall	37, Walbrook.
So. Condurrow TC	2/6 7/6	2/6	*	3/6 Apr.'93	7 17 6	6,123	Cornwall	20, Great St Helens
South Crofty TA	2/6 7/6	2/6	*	—	17 7 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. T	2/6 7/6	2/6	*	—	2 7 6	6,000	Cornwall	Redruth.
Tincroft ...T	4½ 5¼	4¾	*	2/- Aug.'94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ...L	8/9	8/9	4 0	1/3 Oct.'90	1 10 0	50,000	Durham	3, Lombard-court.
West Frances ...T	2/6 7/6	2/6	—	2/6 May,'89	16 4 7	6,144	Cornwall	Camborne.
West Kitty ...T	5 5½	5	*	2/- Dec,'94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ..TA	2/6 7/6	2/6	*	2/6 Aug.'88	23 15 2	6,000	Cornwall	Redruth.
Wheal Basset ...TC	10/- 15/-	10/-	*	10/- Apr.'88	12 3 0	6,144	Cornwall	Redruth.
Wheal Friendly ..T	-/6 1/-	-/6	*	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Grenville T	10½ 11½	10½	*	2/6 Nov.'94	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty ...T	1/- 3/-	1/-	*	3/- Mar.'88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F. T	1/- 1/6	1/-	*	—	0 13 9	10,784	Cornwall	14, Broad-street Av.

AUSTRALIAN AND NEW ZEALAND MINES.

Name	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued	Situation of Mine.	Head Office
Abbotts ...G	11/3 13/9	11/3	1 0	—	0 17 6	100,000	Murchison	17, Old Broad st.
Achilles Gld Fld.	2/ 3/	2/-	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas., E.C.
Aladdins Lamp G	18/9 21/3	17/6	1 0	1/- Mar.'95	1 0 0	100,000	N S Wales	4-6, Throg. Avenue.
Assoc. Gold Mines	par ½ pm	1/16 dis.	1 0	—	0 10 0	375,000	Coolgardie	Broad Street Avenue
Austin ...G	20/ 22/6	20/-	1 0	—	1 0 0	50,000	W. Australia	23, College hill, EC
Australasian ...G	4/9 5/3	4/3	1 0	-/6 Mar.,'92	1 0 0	210,000	Queensland	6, Queen-st. place
Australian ...C	—	—	20 0	1/6 July '94	7 7 6	18,315	So. Australia	15, Old Jewry Chbrs
Aus. Bro. Hill Con.	1/3 1/9	1/3	1 0	1/- June,'91	1 0 0	537,138	N. S. Wales	Dashwood House.
Baker's Creek ...G	1 1⅛ xd	1⅛	1 0	1/- Feb.'94	0 17 6	100,000	N. S. Wales	Hillgrove, N.S.Wales
Bayley's Reward G	10/- 11/-	10/6	1 0	-/4 Dec. 94	1 0 0	480,000	W. Australia	2, Met. Ex. Buildings
Big Blow ...G	13/16 15/16	¾	1 0	—	0 15 0	100,000	W. Australia	Blomfield Ho., E.C.
Blackett's Claim G	7/6 10/-	7/6	1 0	—	1 0 0	60,000	W. Australia	14, Sherborne ln. E.C.
Blue Spur & G. G.	-/6 1/-	-/6	1 0	—	1 0 0	80,098	New Zealand	6, Gt. St. Helens'
Bonnie Dundee G	15/6 16/6	13/-	1 0	—	0 18 6	120,000	Queensland	3-5, Gracechurch-st
Brilliant ...G	17/ 18/ xd	17/	2 0	-/4 Feb.'95	2 0 0	150,000	Queensland	Charters Towers.
Brilliant Block ..G	1 13/16 1 15/16 xd	1 13/16	2 0	-/6 Mar.'95	2 0 0	250,000	Queensland	3, Gracechurch-st.
Brilliant, St. Geo.	1⅜ 1½ xd	1⅜	0 10	6d. Feb.'95	0 6 3	72,000	Queensland	Charters Towers.
Brit. Brok. Hill S	4/6 5/6	4/6	5 0	—	5 0 0	240,000	N. S. Wales	Dashwood Ho., E.C.
Broken Hill Prop.	1¾ 1⅞	1 13/16	0 8	1/- Feb.'95	0 8 0	960,000	N. S. Wales	Dashwood Ho., E.C.
Brown's Creek ...G	15/16 1 1/16	15/16	—	—	—	—	—	
Cashman Bril. ...G	⅜ ½	⅜	1 0	—	1 0 0	60,000	Coolgardie	14, Sherborne ln. E C
Carrington ...G	4/9 5/3	5/	12/6	—	0 12 6	100,017	Queensland	9, Tokenhouse Yard,
Con. G. M. of W. A.	par ½ p.m	1/16	1 0	—	0 12 6	90,000	W. Australia	14, Hill st., Edinboro'
Coolgardie ...G	-/9 1/-	-/9	0 2	—	0 0 6	40,000	Coolgardie	Winchester House.
Coolgardie(Shrews)	11/- 12/-	7/6	1 0	—	0 5 0	—	Coolgardie	Broad Street Avenue.
Craven's Cal. ...G	3/6 4/6	3/6	0 6	-/3 June 94	0 4 8	100,000	Queensland	30-1, S. Swithin's-la.
Crown Bayley's G	1/16 ½ pm	1/16	1 0	—	0 10 0	80,000	Coolgardie	Bishopsgate Ho. E.C.
Croydon King B. G	3/- 5/-	3/-	0 5	—	0 5 0	60,000	N. Queensland	Leadenhall Blg. E.C.
Cumbrind (New) G	3/3 3/9	3/6	1 0	2/6 Dec.'87	0 18 6	184,590	Queensland	Blomfield House E.C
DayDawn B.&W. G	11/6 12/6	10/-	1 0	-/6 Mar. 93	1 0 0	498,400	Queensland	3-5, Gracechurch-st.
Day Dawn P. C. G	5/- 5/6	5/3	1 0	-/6 Apr.'92	1 0 0	490,000	Queensland	Winchester Ho., E.C
Eaglehawk ...G	1/6 2/-	1/6	1 0	—	0 19 9	120,000	Victoria	31, Lombard-street.
Empress Coolge. G	¾ ½ dis.	¾	1 0	—	0 10 0	90,000	W. Australia	2, Tokenhouse bldgs
Eng. & Aus. Cop. Cu	1/16	1/16	2 0	2% 1883	1 17 6	70,000	So. Australia	136, Palmerston-blds
Etheridge ...G	-/1½	-1½	0 5	—	0 5 0	324,290	Queensland	6-7, Queen-street-pl.
Frederick the Gt G	par. ½ pm.	p.½pm.	1 0	—	1 0 0	125,000	Victoria	St. George's House.
Glenrock ...G	1/3 1/9	1/3	1 0	—	1 0 0	225,000	N. Zealand	3-5, Queen-st. E.C.
Golconda ...G	18/9 21/3	18/9	1 0	—	1 0 0	73,000	W. Australia	14, Sherborne ln., E.C
Gold Estates	1 1/16 1 3/16	1 1/16	1 0	—	—	60,000	W. Australia	
Great Boulder ...G	11/6 12/6	11/	1 0	—	1 0 0	119,350	W. Australia	3, Gracechurch st.
Great Coolgardie	¾ ⅞	¾	1 0	—	0 10 0	85,000	Coolgardie	3, Budge Row.
Great Fingall Rfs.	2 2¼	2	1 0	—	—	—	—	
Golden Gate ...G	1/6 2/-	1/3	0 10	—	0 10 0	150,000	Queensland	9, Tokenhouse Yard.
Hampton Lands	3¼ 3½	3 5/16	1 0	10/- Nov.'94	1 0 0	64,075	W. Australia	1, Whittington Avue
Hampton Plains	1 13/16 1 15/16	1 13/16	1 0	—	0 4 0	350,000	W. Australia	29, S. Swithin's lane
Hannan's Brwn Hil	1⅜ 1½	15/16	1 0	—	—	70,000	W. Australia	Bartholemew House.
Kaboonga ...G	2/3 2/9	2/3	0 10	—	0 9 9	500,000	Queensland	70-71, Bishopsgate st.
Kangarilla ...S	2/6 3/6	2/6	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street.
Kapanga ...G	7/- 7/6	6/6	1 0	-/6 Jan.'91	0 19 6	250,000	N. Zealand	9, New Broad-street.
Kilkivan ...G	—	—	1 0	—	1 0 0	81,392	Queensland	4, Coleman-street.
Kinsella ...G	18/9 21/3	17/6	1 0	—	1 0 0	80,000	W. Australia	33, Broad-st. Avenue
Lady Leigh	1/16 dis 1/16 pm	⅜	1 0	—	0 10 0	70,000	Coolgardie	
Lady Mary Amalg.	1⅜ 1½	15/16	1 0	—	—	46,000	Murchison	Blomfield House.
Lindsay	1/16 3/16 pm.	1/16	1 0	—	0 7 6	65,000	Coolgardie	15, Angel Court.
Londonderry ...G	5/- 7/6	¾	1 0	—	1 0 0	467,000	Coolgardie	3, Gracechurch-st.
L.&W. Aust. Expl.	1⅜ 1¾	19/16	1 0	20 p.c. Dec.'94	1 0 0	100,000	W. Australia	Broad Street Ho.
Mainland Cons. G	1/16 3/16 pm	—	1 0	—	0 10 0	150,000	Murchison	54, Old Broad Street
Mawson's Rewrd. G	13/9 21/3	20/	1 0	—	0 10 0	60,000	W. Australia	28 & 29, S Swithin's ln
Mills' Day Dawn G	1⅜ 1½	1 7/16	1 0	-/6 Feb.'95	0 15 6	300,000	Queensland	3, Gracechurch-st.
Mosman ...G	4/3 4/9	4/3	1 0	—	1 0 0	59,235	N. S. Wales	16, St. Helen's-place.
Mt. Leyshon ...G	—	—	1 0	-/6 Dec.'90	1 0 0	157,989	Queensland	7, Draper's-gardens.
Mountain Maid G	2/- 3/-	2/-	0 10	—	0 6 3	56,000	Queensland	Leadenhall Bldgs.
Mount Morgan G	2 9/16 2 11/16	2 7/16	1 0	-/6 Feb. 95	0 17 6	1,600,000	Queensland	50, Lime-street.
Mount Zeehan SL	-/6 1/-	-/6	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
New Queen ...G	6/- 6/6	6/-	1 0	-/6 Apr.,'94	0 19 6	158,915	Queensland	30, St. Swithin's-la.
Nicol Mines	⅛ ¾ pm.	⅜	1 0	—	—	80,000	W. Australia	151, Cannon St., E.C.
North Coolgardie	3/- 3/6	—	0 5	—	0 4 0	—	Coolgardie	226, Winchester Ho.
N. Q'ld. M. Agency	23/6 24/6	25/-	1 0	2/6 Jan.'95	1 0 0	90,000	Queensland	10, New Broad Street
Port Phillip ...G	-/3 -/9	-/3	0 5	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C.
Queen's Bthdy Un	11/3 11/9	9/6	1 0	—	0 12 6	75,000	Victoria	7-8, Gt. Wnchster St.
Scottish Australian	⅝ ⅞	⅝	1 0	4 4-5d. Nov.'94	1 0 0	200,00	N.S. Wales	Winchester Ho. E.C.
Sunburst ...G	—	—	0 10	-/6 Mar.'92	0 10 0	150,000	Queensland	9, Tokenhouse Yard.
Victoria Associatn.	—	—	1 0	-/3 Mar.'95	1 0 0	144,000	Char. Towers	6, Crosby-square
Victory ...G	5/6 6/6	5/6	0 5	-/6 Mar.,'94	0 5 0	200,000	Queensland	32, Gresham-st., E.C
Waihi ...G	6 6¾	6½	1 0	2/- Jan,'95	1 0 0	150,000	New Zealand	11, Abchurch-ln E.C
Wentworth Exten	3/9 4/3	3/9	0 5	—	0 5 0	178,828	N. S. Wales	19, S. Swithin's Lane
Wentworth Ord. G	7/- 8/-	6/-	1 0	—	1 0 0	350,000	N. S. Wales	4-6, Throgmort. Av.
Went. Priority ..G	16/- 17/-	15/-	1 0	3/- Apr.'95	1 0 0	150,000	N. S. Wales	4-6, Throgmort. Av.
W. Argentine ...G	1/3 1/9	1/6	1 0	—	0 19 6	150,000	N. Zealand	3-5, Queen-street.
W. Aust. Concessn	1⅜ 1⅝	1⅜	1 0	1/- Jan.'95	1 0 0	17,500	W. Australia	33, Old Broad st., EC
W. Aus. Exploring	1/16 3/16 pm	1/16	1 0	—	0 15 0	100,000	W. Australia	54, Old Broad st., EC
W. Australian G.F.	3 9/16 3 11/16	3 7/16	1 0	2/6 Dec.,94	1 0 0	65,000	W. Australia	28-29, S. Swithin's-ln.
W. Aust. Mining	5/6 6/6	5/6	1 0	—	1 0 0	104,297	W. Australia	157, Winchester Ho.
W. Mallina ...G	2/- 2/6	2/-	0 5	—	0 3 0	80,000	W. Australia	Winchester House.
White Feather ...G	2½ 2¾	2⅜	1 0	—	1 0 0	60,000	W. Australia	28 & 29, S. Swithin's ln.
Zapopan ...G	6/6 7/-	6/9	1 0	—	0 5 0	—	—	70, Bishopsgate-street
Zeehan Montana S	—	—	1 0	6d Aug.,94	1 0 0	66,000	Tasmania	11, Queen Victoria st.
Zeehan Montana S	—	—	1 0	5d Aug.,94	0 12 6	12,600	Tasmania	11, Queen Victoria st.

EUROPEAN MINES.

Name	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued	Situation of Mine.	Head Office
Alamillos ...L	10/- 15/-	10/-	2 0	-/6 Oct.'94	2 0 0	35,000	Spain	6, Queen-street-place
Avala ...Q	0 ⅛	0	1 0	1/- May '93	1 0 0	150,047	Servia	4, Tokenho. Bldgs.
Consett Ore ...I	5¾ xd	5¾	1 0	5/- July 94	1 0 0	55,20	Spain	19, Grey-st., N'castle.
English Cr. Spelter	⅜ ⅝	⅜	1 0	2½% Aug.'94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ...L	17/6 22/6	17/6	2 0	1/- Oct.'94	2 0 0	25,000	Spain	6, Queen-street-place
Libiola ...C	3¼ 3½	3¼	5 0	2/6 Aug. 94	5 0 0	60,400	Italy	Dashwood Ho., E.C.
Linares ...L	3⅞ 4⅛	3¾	3 0	5/- Oct,'94	3 0 0	14,998	Spain	6, Queen-street-place
Mason & Barry ...C	1 11/16 1 13/16	1¾	5 0	2/- May.'94	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar ...G	—	—	5 0	—	0 4 6	117,240	Norway	6A, Austin Friars.
Pestarena ...G	4/6 5/6	5/-	3 0	—	3 0 0	67,809	Italy	6-7, Queen-street-pl.
Pontgibaud ...SL	—	—	20 0	11/8 Dec.'54	20 0 0	14,000	Coueron, Fr.	6-7, Queen-street-pl.
Rio Tinto ...C	12¾ 12⅞	12 13/16	10 0	4/- Oct.,'94	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	105 107	105	100 0	5% Jan.,'95	100 0 0	£1892,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	102 104	102	100 0	5% Jan.'95	100 0 0	£1024,860	Spain	30, St. Swithin's-lane
Do. (3rd do.)	101 103	101	100 0	5 p.c. Jan.,95	100 0 0	£587,080	Spain	30, St. Swithin's lane
Ripanji ...SQ	8/- 10/-	8/-	1 0	—	0 19 0	95,000	Servia	120, Bishopsgt-st. Wn‡
Tharsis ...C Sul	4⅜ 4⅝	4⅜	2 0	12½% Mar.'94	2 0 0	625,000	Spain	Glasgow.
West Prus Pre. pref	—	—	10 0	8% Jan. 95	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	—	—	10 0	8% Jan.'95	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	—	—	10 0	8% Jan.'95	10 0 0	14,060	Germany	Walbrook Ho., E.C.
Wohlfahrt ...L	—	—	1 0	3% Dec.'94	1 0 0	99,634	Prussia	17, Victoria-st., S.W.
Wohlfahrt	—	—	1 0	3% Dec.'94	0 10 0	9,090	Prussia	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par. £ s.	Latest Dividend.	Called up per Share. £ s. d.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Asia Minor Pref. Sl.	—	—	0 10	—	0 10 0	42,430	Asia Minor	2, Metal Ex Bldgs.
Do. Ord.	—	—	1 0	—	0 9 0	51,584	Asia Minor	2, Metal Ex. Bldgs.
Balaghat Mysore G	3/3 3/9	3/6	1 0	—	0 19 0	160,000	India	6-7, Queen-street-pl.
Burma Ruby ...R	11/6 12/6	11/-	1 0	—	0 18 0	300,000	Burmah	Suffolk House, E.C.
Champion Reef ...G	3 15/16 4 1/16	4	1 0	3/- Jan.'95	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central ...G	-/6 1/-	-/9	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel ...G	5/- 6/-	5/-	1 0	—	0 13 9	95,000	India	6-7, Queen-st.-place.
DevAla Moyar ...G	—	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane.
Gemming & Mining	—	—	2 0	—	1 7 6	19,594	Ceylon	183, Gresham House.
GoldFldsMysore G	17/- 19/-	17/-	1 0	1/- July '92	1 0 0	220,000	India	6-7, Queen-street pl.
Gold Flds Siam G	—	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec.	8⅝ 8⅞	8¾	10 0	—	10 0 0	115,000	Deccan	16, St. Helen's-place.
Kempinkote GdFd	2/- 2/6	2/-	0 5	—	0 3 6	665,473	India	6-7, Queen-st.-place.
Mysore ...G	2 13/16 2 15/16	2 11/16	1 0	2/- Feb,'95	1 0 0	250,000	India	6-7 Queen-street pl.
My. Harnhalli ...G	1/6 2/-	1/3	1 0	—	0 18 0	100,000	India	2, East India Avenue
Mysore Reefs ...G	6/6 7/6	5/-	1 0	—	1 0 0	134,788	India	6-7, Queen-street-pl.
Mysore West (N) G	12/6 13/6	12/-	1 0	—	0 19 0	127,408	India	Dashwood Ho., E.C.
Mysore Wynaad G	12/- 14/-	12/-	1 0	—	0 19 0	250,000	India	Dashwood Ho., E.C.
Nine Reefs ...G	2/6 3/-	1/9	0 10	—	0 10 0	50,000	India	6-7, Queen-street-pl.
Nundydroog ...G	1⅝ 2	1⅞	1 0	1/6 Mar.'95	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Df.O.) G	2¾ 3	2 13/16	1 0	2/6 Nov.'94	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10% Pref.)	3⅜ 3⅝	3 1/16	1 0	2/6 Nov. 94	1 0 0	95,536	India	6-7, Queen-street-pl.
Do. (10% Pref.)	2¾ 3	2⅜	1 0	2/6 Nov.'94	0 5 0	24,464	India	6-7, Queen-street-pl.
Pahang Corpn. T	—	—	1 0	15% Apr.'89	1 0 0	203,070	Malay Penin.	Blomfield Ho., E.C.
Pahang Kabang T	1/16 3/16	1/16	1 0	—	1 0 0	394,760	Malay Penin.	4a, Jeffrey's sq., E.C
S. Aust. Petroleum	1/3 1/9	1/3	1 0	—	0 18 6	108,000	Burmah	12, Pancras Ln., E.C.
Yerrakonda ...G	2/6 3/-	2/9	0 4	—	0 2 6	—	Mysore	6-7, Queen-street-pl.

NORTH AMERICAN MINES.

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Alaska Mexican ...G	1 1⅛	1	$5	7 1-5d. Nov. 94	$5	160,000	Alaska	30, St. Swithin's-ln
Alaska Treadwell G	3⅛ 3⅜	2⅞	$25	1/6 Jan.,'95	$25	200,000	Alaska	30, St. Swithin's-ln.
Almada and T. ...S	-/3 -/6	-/3	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle ...S	1/- 1/6	1/-	1 0	-/6 Mar.'91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ...S	—	—	5 0	3/- Jan.'90	5 0 0	74,850	Mexico	23, College Hill.
Arizona (Pref.) Cu	13/9 14/-	13/9	4 0	—	4 0 0	158,920	Arizona	74, Geo.-st., Edinbor
Do. 6½ A Deben.	85½	82½	100 0	—	100 0 0	£135,300	Arizona	74, Geo.-st., Edinbor
Do. 7% B Deben.	7)	65½	100 0	—	100 0 0	£181,300	Arizona	74, Geo. st. Edinbor
Big Creek ...Ay.	2/6 3/6	2/6	1 0	1/- Dec.'91	1 0 0	50,000	Nevada	2, Pancras-lane, E.C.
California ...G	—	—	0 10	-/6 May 90	0 8 9	129,571	Colorado	St. George's Ho. E.C.
Canadian Phos. P	—	—	1 0	-/6 Nov.'90	1 0 0	73,334	Canada	155, Fenchurch-st.
Colorado Boy ...S	—	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs. E.C
Cortez ...S	—	—	1 0	3% Feb.'93	1 0 0	300,000	Nevada	Suffolk House, E.C.
Decatur ...Sl.	—	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do. (Pref.)	—	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st.
De Lamar ...GS	25/6 26/6	26/-	1 0	1/- Jan,'95	1 0 0	400,000	Idaho	6, Draper's-gardens.
Dickens Custer GS	1/- 1/6	1/3	1 0	—	0 19 9	420,000	Idaho	Winchester Ho. E.C
Elkhorn ...S	10/- 11/-	1[illegible]/-	1 0	-/9 Dec.'94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma ...S	-/3 -/6	-/3	0 5	—	0 5 0	403,618	Utah	15, Geo-st, Mansn. Ho.
Flagstaff ...S	—	1/6	1 0	—	0 18 9	240,000	Utah	Dashwood Ho., E.C
Fisk ...G	—	—	1 0	6d May, 94	1 0 0	134,000	Colorado	5, Fenchurch st.
Garfield ...GS	—	—	1 0	-/6 Dec.'88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Golden Feather G	8/- 9/-	7/6	1 0	—	1 0 0	180,000	California	St. Stephens Cs E.C.
Golden Gate ...G	2/- 3/-	3/-	1 0	—	0 19 6	79,600	California	St. Stephens Cs E.C.
Golden Leaf ...G	2/9 3/3	3/-	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Golden Valley ...G	1/3	1/3	1 0	—	0 19 0	55,507	Colorado	15, Angel Court.
Harquahala ...G	4/6 5/6	5/-	1 0	-/6 Oct.,'94	1 0 0	300,000	Arizona	6, Draper's Gardens.
Holcomb Valley G	2/- 2/6	1/9	0 5	—	0 5 0	540,000	California	14, Cornhill, E.C.
Idaho ...GS	3/- 3/6	3/-	0 5	-/2 Dec. 94	0 4 8	143,439	Idaho	140, Leadenhall-st
Jackson Goldfields	2/4½ 2/7½	—	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk (New) G	1/- 1/6	-/9	1 0	-/6 Dec.'92	0 19 3	285,000	Montana	Dashwood House.
La Plata ...S	1/9 2/3	1/9	0 5	1/3 Oct.'82	0 4 6	405,000	Colorado	11, Poultry, E.C.
La Yesca ...GS	2/9 3/3	2/9	1 0	—	0 19 0	76,015	Mexico	20, Bucklersbury, E.C
Maid of Erin ...S	4/6 5/6	—	1 0	4c. p sh Sept'94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold	—	—	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro (P) G	—	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Mesq. d'l Oro (D) G	—	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Montana ...GS	12/- 13/-	12/-	1 0	-/6 Jan.'95	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ...S	—	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Cham. E.C
N. Consolidated SC	—	—	0 5	—	0 3 6	248,576	Nevada	15, Angel-court, E.C
N. Gold Hill ...G	-/3 -/6	-/3	1 0	—	0 19 9	191,045	N. Carolina	15, George-st., E.C.
New Guston ...S	10/- 12/6	10/	1 0	1/- Oct.'92	1 0 0	110,000	Colorado	25A, Old Broad-st.
New Hoover Hill G	-/3 -/6	-/3	0 10	-/9 Dec.'88	0 10 0	120,000	N. Carolina	Langthorne Ho., E.C.
Palmarejo ...GS	-/9 1/3	/9	1 0	—	1 0 0	418,888	Mexico	4, Copthall-buildings
PinosAltos (Df) GS	5/- 6/-	5/	1 0	-/6 Mar.'90	1 0 0	100,000	Mexico	110, Cannon-street.
Do. 15% Cum Pref	—	—	1 0	—	1 0 0	60,000	Mexico	110, Cannon street.
Pittsbg Con. (N) G	6/1	—	1 0	1/6 Mar.'88	0 19 0	77,147	Nevada	Suffolk House, E.C
Poorman Con. GS	1/9 2/3	1,9	0 5	—	0 5 0	273,948	Idaho	5, Copthall-b'gs. E.C
Red Mountain ...S	—	—	1 0	—	1 0 0	46,886	Colorado	11, Poultry, E.C.
Richmond ...GSL	3/9 11/3	8/9	5 0	1/- Nov.'94	5 0 0	54,000	Nevada	44, Coleman-street.
Ruby ...GSL	—	—	0 5	—	0 5 0	211,371	Nevada	22 St. Mary Axe.
Sierra Buttes ...G	10/- 12/-	10/-	2 0	-/6 Oct.'94	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. G	12/6 15/-	12/6	2 0	-/9 Oct.'94	2 0 0	140,265	California	138, Leadenhall-st.
Springdale ...G	2/3 2/9 xd	2/3	$1	2d Aug.,94	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1⅛ 1¼ xd	1 3/16	1 0	3/- Feb.'95	1 0 0	26,000	Colorado	5, Lawrence P. Hl. E.C
United Mexican S	—	1/-	1 0	2/6 May,'87	1 0 0	906,654	Mexico	3, Gt. Winchester-st.

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Anglo-Chilian Pf N	8 8½	8	10 0	4/5 Dec.'89	10 0 0	35,000	Antofagasta	123, Bishops.-st. W.
Do. 6% Ryist MB	99 101	99	100 0	6% Jan.,'95	100 0 0	£200,000	Antofagasta	123, Bishops.st. W.
Antio. (Pref.) G.S.	—	—	1 0	-/6 Mar.'90	1 0 0	22,823	Colombia	184, Gresham Ho.
Antioquia (ordiny)	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham Ho.
Caratal ...G	1/1½ 1/4½	1/3	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Caylloma ...S	1¼ 1⅜	1¼	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon ...G	-/6	—	0 5	—	0 4 0	200,000	Colombia	5, Copthall-bdgs., E.C.
Colorado Nit. ...N	2¼ 2¾	2¼	5 0	8% Nov.,'94	5 0 0	32,000	Chili	12, King-st., Liverp'l.
Colombia ...G	—	—	20 0	10 frs. Aug. 94	20 0 0	—	Venezuela	Ciudad, Bolivar.
Colombian Hy ...G	11/6 12/6	11/6	1 0	1/- Sept.'94	1 0 0	75,000	Colombia	10, Blomfield-street.
Copiapo ...C	1 9/16 1 11/16	1⅝	2 0	1/- Dec.'94	2 0 0	100,000	Chili	Dashwood House, E.C
Darien "A" ...G	2⅝ 2⅞	2¼	1 0	—	1 0 0	49,553	Colombia	Manchester.
Don Pedro ...G	6/- 7/-	5/6	1 0	—	0 18 6	133,102	Brazil	24-5, Devonsh. Cs E.C
El Callao ...G	7/6 12/6	7/6	5 0	9½d Feb,'94	5 0 0	257,600	Venezuela	8, Bishopsgt.-st. Wn
Frontino & B. ...G	1 5/16 1 7/16	1 5/16	1 0	1/- Dec.,'94	1 0 0	128,662	Colombia	184, Gresham House
Glenrock ...G	1/3 1/9	1/3	1 0	—	1 0 0	199,948	Argen. (& Ind)	3-5, Queen-street, E.C
Gravel ...G	3/6 4/6	3/-	1 0	—	0 18 6	100,000	Colombia	10, Blomfield-street.
Guadalupe ...GS	3/6 5/-	3/6	1 0	—	1 0 0	120,000	Honduras	11a, Unionct. Old Brdst.
Huanchaca ...S	—	—	5 0	4/- Sept.'94	5 0 0	320,000	Bolivia	10, Avnu. d'Alma, Paris
Javali ...G	-/6 1/6	-/6	0 2	8½% '91	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Taltal ...N	⅜ ⅞	13/16	1 0	—	1 0 0	200,000	Chili	79½, Gracechurch-st.
Lagunas ...N	5¾ 6¼	5¾	5 0	15p.c. Dec.'94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ...N	8 8½	8	5 0	7/6 Dec. 94	5 0 0	110,000	Chili	70, Gracechurch st.
Liverpool ...N	11 12	8	5 0	10 p c Dec. 94	5 0 0	22,000	Chili	Liverpool.
Loma ...G	-/6 1/-	-/6	1 0	—	1 0 0	300,000	Colombia	5, Copthall-buildings
London Nit. ...N	1⅝ 2¼	2	3 0	3/4¾ Nov.'89	5 0 0	10,000	Chili	9, Gracechurch-st.
London Nit. (Pref.)	4 4½	4	5 0	8% Nov.'94	5 0 0	22,000	Chili	9, Gracechurch-st.
Macate ...G	3/3 3/9	3/3	0 2	—	0 2 0	200,000	Peru	11, Old Broad-st. E.C
New Tamarugal N	⅛ ⅜	⅛	1 10	1s. Dec.'94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 8% Cum Pref	15/16 1 1/16	15/16	1 10	8 p.c. Feb.'95	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 6 p.c. Debs	86 89	86	100 0	6 p.c. Feb.'95	100 0 0	£260,000	Tarapaca	50, Lime-street, E.C
Orita ...G	1/- 1/6	1/-	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street.
Ouro Preto ...G	—	—	1 0	—	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa N	4¼ 4¾	4¼	5 0	5/- Aug.'94	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Primitiva ...N	1⅝ 2¼	2½	5 0	20% Oct.'89	5 0 0	40,000	Chili	Liverpool.
Quebrada ...C	3/- 5/-	3/-	3 0	5% Mar.'92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Quebrada ...C	—	40	8 k.	6% Feb., 94	100 0 0	£400,000	Venezuela	38, Nicholas Lane.
Rosario ...N	5¼ 5½ xd	5⅜	5 0	7/6 Feb.'95	5 0 0	120,000	Chili	57½, Old Broad-street
Rosario (6% Deb.)	105 107	105	100 0	6% Oct.'94	100 0 0	£475,000	Chili	57½, Old Broad-street
St. John del Rey G	26/6 27/6	27/-	1 0	10% June '82	1 0 0	224,200	Brazil	Finsby. Ho., Blmf'dst.
San Donato ...N	2¼ 2¾	2¼	5 0	—	5 0 0	32,000	Chili	12, King-st., Liverp'l
San Jorge ...N	5⅛ 6	5⅝	5 0	7/6 Sept.'94	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo ...N	3 3½	3	5 0	2½% Nov.,'94	5 0	32,000	Chili	Gracechurch-st.

'THE MINING JOURNAL" SHARE LIST—(Continued).

SOUTH AND CENTRAL AMERICAN MINES—(Continued).

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	60,000	Brazil	Liverpool
Santa Elena ...N	¾ 1	¾	5 0	5/- Oct. '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita ...N	3½ 4¼	3½	5 0	15% Apr., '94	5 0 0	20,000	Chili	Dashwood House, E.C
San Sebastian ...N	2¾ 3	2⅝	5 0	5/- Dec. '94	5 0 0	20,000	Chili	Dashwood House, E.C
Segovia ...G	—	—	5 0	—	0 4 0	160,000	Colombia	5, Copthall-buildings
Sucre Pref. ...G	—	—	1 0	10% Dec. '94	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord. ...G	—	—	1 0	6% Dec. '94	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tetuan ...G	—	—	1 0	—	0 19 6	200,000	Colombia	5, Copthall-buildings
Tolima "A" ...S	6¾ 7¼	6¼	5 0	10/- Dec., '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" ...S	6 6½	5½	5 0	10/- Dec., '94	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	1/3 1/6	1/3	0 5	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
West Indian ...G	—	—	0 5	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st
Zaruma ...G	—	—	0 5	—	0 5 0	261,412	Ecuador	1, Gt. Winchester-st.

AFRICAN MINES.

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
African Coal ...	6/9 7/3	6/9	1 0	—	0 16 6	—	—	—
African Gold Con.	7/- 8/-	6/6	0 10	20 p.c. Jan.'95	0 8 0	300,000	—	16, Tokenhouse-yard
Afrikander ... G	1⅛ 1⅜	1 5/16	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lan.
Agnes Block ... G	13/9 16/3	13/9	1 0	—	1 0 0	76,507	Transvaal	54, Old Broad-street
Alexandra Estate G	6/3 6/9	5/3	1 0	—	1 0 0	225,000	Witwatersrd.	Warnford Court, EC.
Anglo-French Exp	1 15/16 2 1/16	1⅞	5 0	10% Dec. 94	5 0 0	30,300	S. Africa	170, Winchester Ho.
Appantoo ... G	—	—	1 0	—	1 0 0	77,685	West Coast	Dashwood House.
Aurora ... G	14/- 16/-	13/-	1 0	6% Mar.'93	1 0 0	65,000	Witwatersrd.	8, Old Jewry.‡
Balkis Eersteling G	3/9 4/3	2/6	0 10	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Balkis Land ...	3/9 4/3	3/3	0 10	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Banket ... G	2/6 3/-	2/6	1 0	—	1 0 0	200,000	Witwatersrd.	Johannesburg.
Bantjes Reef ... G	2 1/16 2 3/16	2⅛	1 0	—	1 0 0	83,000	Witwatersrd.	Warnford-court.†‡
Barrett ... G	9/- 10/-	9/-	0 10	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp	32/ 33/	30/	1 0	2/- Feb. 95	1 0 0	200,000	Bechuanaland	19, St. Swithin's-lane
Block "B" Lang.	16/- 17/-	15/6	1 0	—	1 0 0	535,000	Witwatersrd.	8, Princes-st. E.C.‡
Booysen Land ... G	2 2¼	2/-	1 0	—	0 12 0	95,000	Transvaal	4, Tokenhouse-blds
Brit. S. A. Char.	42/- 43/-	41/	1 0	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Buffelsdoorn ... G	3 9/16 3 11/16	3⅜	1 0	—	1 0 0	250,000	Potchefstroom	7, Lothbury.
Bulawayo Synd.	⅝ ⅜pm	⅝	1 0	—	1 0 0	12,000	Matabeleland	10, Helen's Place.
Cape Asbestos ...	2⅛ 2⅜	2 5/16	1 0	—	1 0 0	50,211	Orange River	13, St. Swithin's-lane
Cape Copper ...C	1⅜ 1⅝	1⅜	2 0	1/3 Dec. '94	2 0 0	300,000	Cape Colony	9, Queen-street-place,
Do. 6% Pref. ...	2 2¼	2	2 0	1/3 Dec. '94	2 0 0	45,000	Cape Colony	9, Queen-street-place
Cassel Colliery ...	3¾ 4	3⅜	1 0	10pc Dec. '94	1 0 0	75,000	—	99, Cannon-street.
Con. Montrose ... G	1/- 2/-	1/-	1 0	—	0 18 6	69,000	Transvaal	15, George st. Mn. Ho.
Champ d'Or ... G	3⅞ 4⅛	3¾	1 0	4/- Jan. 95	1 0 0	116,016	Witwatersrd.	8, Old Jewry, E.C.
Champ d'Or Deep G	18/- 20/-	19/6	1 0	—	1 0 0	275,000	Witwatersrd.	Fox st., Johannesbrg
Champ d'Or French	—	—	1 0	4/- Jan. '95	1 0 0	117,499	Witwatersrd.	8, Old Jewry, E.C.
City and Suburb. G	19⅛ 19¾	18⅜	1 0	25% Mar. '94	1 0 0	75,000	Witwatersrd.	1, Crosby Square.‡
Coetzeestroom ... G	1/5 2/6	2/-	0 5	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	27/6 28/6	27/6	1 0	3½% Sept. '94	1 0 0	721,500	Griqualand W	62, Lombard-st.
Con. Deep Levels G	4⅜ 4⅝	4⅜	1 0	4/- June '94.	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A	4 4¼	4	1 0	15% Nov. '94	1 0 0	1,250,00	S. Africa	8 Old Jewry.
Do. 5½% Deben.	108 109	107	5 0	5½ Jan. '95	5 0 0	610,000	S. Africa	8, Old Jewry.
Croesus Deep ...	2⅜ 2½	2 5/16	1 0	—	1 0 0	250,000	—	1, Draper-gardens
Crown Reef ... G	10 10¼	9⅝	1 0	25% Nov. '94	1 0 0	120,000	Witwatersrd.	120, Bishopsgt st Wn‡
De Beers Consol. D	20¾ 21	20¾	5 0	12/6 Jan. '95	5 0 0	789,791	Transvaal	62, Lombard-street.
Do. 5% 1st Deb.	108 109	108	100 0	5% Jan. '95	5 0 0	£3,500000	Transvaal	62, Lombard-street.
Do. 5½% Bnl. Ob.	108½ 107½	106½	100 0	5½% Oct. '94	5 0 0	£720,100	Transvaal	62, Lombard-street.
Durban Roodept. G	7¼ 7½	7	1 0	3/- Dec., '94	1 0 0	£125,000	Witwatersrd.	28, Leadenhall-bldgs
Eastleigh ... G	1 5/16 1 7/16	1¼	1 0	—	1 0 0	240,000	—	14, Sherborne-lane.
East Rand ... G	53/- 54/-	51/6	1 0	—	1 0 0	570,000	Witwatersrd.	170, Winchester-ho.
Evelyn ... G	11/16 ¾	11/16	1 0	10% Jan. '89	1 0 0	66,000	Witwatersrd.	28, Old Jewry, E.C
Exploration ...	1½ 1¾	1⅜	1 0	1/- Dec. '94	0 4 0	14,000	S. Africa	30, St. Swithin's-ln.‡
Exploring Co.	3¾ 4	3½	1 0	25/- Feb. '94	1 0 0	69,350	S. Africa	19, St. Swithin's-ln.
Ferreira ... G	17⅜ 17¾	15¾	1 0	50% Dec. '94	1 0 0	45,000	Witwatersrd.	120, Bishopsgt st. Wn‡
Forbes Reef (N'w) G	3/6 4/6	3/6	1 0	—	1 0 0	105,000	De Kaap	45-6, Leadenhall-st.
F. Johnson & Co. ...	17/6 18/6	16/	1 0	—	1 0 0	200,000	Mashonaland	8, Old Jewry‡
Geldenhuis Deep G	7¾ 8	7	1 0	—	1 0 0	265,000	Transvaal	30, St. Swithin's-lane.
Geldenhuis Est. G	6⅝ 6⅞	5⅝	1 0	10% Oct. '94	1 0 0	187,500	Witwatersrd.	120, Bishopsgt st. Wn‡
Do. Main Reef	28/- 29/-	19/6	1 0	—	1 0 0	150,000	Witwatersrd.	Warnford-court, E.C‡
Geldenhuis South.	7/- 8/-	6/	1 0	—	—	—	Witwatersrd.	
George and May G	23/6 24/6	18/6	1 0	—	—	112,750	Witwatersrd.	Warnford Court, E.C
George Goch ... G	2⅜ 3	2¼	1 0	—	1 0 0	100,000	Witwatersrd	Johannesburg.
Ginsberg ...	18/6 19/6	16/6	1 0	—	1 0 0	130,000	Drietfontein	Warnford Court, E.C‡
Glencairn ... G	4⅛ 4⅜	3¾	1 0	7½ pc Jan. 95	1 0 0	200,000	Witwatersrd	2, Drapers-gardens.
Gold Estates T. ... G	3/6 4/6	3/6	1 0	15% Dec.'89	0 10 0	130,000	Transvaal	46, Queen Victoria-st
Gld. Fis. Deep ... G	4 1/16 4 5/16	4⅛	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Masho. L.	11/3 13/9	12/6	1 0	—	1 0 0	200,000	Mashonaland	19, St. Swithin's ln.
G.F. Tierra d' Fuego	3/9 4/3	3/9	0 4	—	0 4 0	400,000	Mozambique	2, Tokenhouse Bldgs.
Grahamstown ... G	17/6 18/6	17/6	1 0	—	1 0 0	150,000	Witwatersrd	14, Throgmorton-st
Graskop ... G	2/- 2/6	1/9	0 5	1¼% Mar. '92	0 5 0	400,000	Lydenburg	85, Gracechurch-st.
Griqualand W. ... D	7¼ 7½ xd	7¼	10 0	2% Sept. '94	10 0 0	165,760	Transvaal	62, Lombard-street
Guy Fawkes ... G	10/6 11/6	6/-	0 10	—	0 6 0	24,000	Manica	Broad-st. Avenue
Harmony (Pref) G	12/6 13/6	12/6	1 0	—	1 0 0	260,000	—	79½, Gracechurch-st.
Henderson's Trans	1⅛ 1⅜	—	1 0	—	1 0 0	250,000	—	85, Gracechurch st.
Henry Nourse ... G	5⅜ 6⅜	5⅝	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Joe's Reef ... G	5/6 6/6	6/6	1 0	—	1 0 0	57,404	De Kaap	21, Mincing Lane.
Johannesburg G F	3/- 4/-	3/-	1 0	—	1 0 0	99,537	Nr. Johannesbg	31, Lombard st., E.C.
Johannesburg Pnr	4⅛ 4⅜	3½	1 0	12½% Nov., '93	1 0 0	21,000	Witwatersrd.	Johannesburg.
Jubilee ... G	9⅜ 9⅞	9⅜	1 0	30% Dec. '94	1 0 0	30,000	Witwatersrd.	8, Old Jewry.†
Jumpers ... G	5⅜ 6	5¾	1 0	25% Dec. '94	1 0 0	100,000	Witwatersrd.	120, Bishopsgt st. Wn‡
Kimberley ... D	par ⅛ pm	pr ⅛pm	1 0	—	0 10 0	98,672	Kimberley	13, Finsbury circus.
Kimberley Rdpt. ...	1⅛ 1¼	11/16	1 0	—	1 0 0	125,000	Kimberley	2, Drapers-gardens.
Koffyfontein ... D	7/6 -/1	15/16	1 0	—	0 5 0	50,000	Jacobsdaal	4, Bishopsgate street
Langlaagte Est. G	4⅜ 4⅛	4⅛	3 0	2/- Dec. '91	1 0 0	467,000	Witwatersrd.	59, Holborn Viaduct
Do. Royal	4⅛ 4⅜	4⅛	1 0	5% Sept. '93	1 0 0	100,000	Witwatersrd.	2, Drapers-gardens

AFRICAN MINES—(Continued)

Name.	Closing Price, Mar. 1, 1895	Closing Price, Feb. 22, 1895.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Lisbon-Berlyn ... G	4/9 5/3	4/6	2/6	—	0 2 6	683,233	Lydenburg	110, Cannon-street.
Lionsdale ...	8/- 10/-	8/6	1 0	—	—	—	—	85, Gracechurch-st.
London & S. A. Ex.	9¾ 10¼	9¾	0 10	25 pc Dec. '94	0 10 0	100,000	S. Africa	19, Finsbury-circus.
Luipaards Vlei Est.	14/- 15/-	13/-	1 0	6% Mar. '90	1 0 0	319,003	Witwatersrd.	Warnford-court.‡
Main Reef (New) G	13/ 14/	13/6	1 0	—	0 10 0	300,000	Witwatersrd.	8, Old Jewry.
Mashon. Agency ...	1 13/16 1 15/16	1 11/16	1 0	—	1 0 0	100,000	Mashonaland	8, Old Jewry, E.C.
Massi Kessi ...	8/- 9/-	8/-	0 10	—	—	100000	—	Broad Street Avenue
May Con. (New) G	2⅛ 2¼	2/	1 0	—	1 0 0	430,000	Witwatersrd.	4, Lothbury.‡
Metropolitan (N) G	2 2⅛	1⅞	1 0	—	1 0 0	75,000	Witwatersrd.	1, Crosby Square.‡
Meyer & Charl. ... G	6⅞ 7⅛	6⅞	1 0	30% Dec., '94	1 0 0	71,687	Witwatersrd.	Warnford-court.‡
Mines Trust ...	—	—	1 0	3% May '94	1 0 0	82,774	So. Africa	130, Winchester Ho.
Modderfontein .. G	9¾ 10	9⅜	1 0	—	1 0 0	200,000	Witwatersrd.	Warnford-court.‡
Montrose ... G	⅝ ¾	⅝	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap	65, New Broad-street
Moodies G.&E. ... G	10/6 11/6	10/	1 0	-/4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry.‡
Mozambique ...	21/- 22/-	19/6	1 0	—	1 0 0	400,000	S. E. Africa	Broad-street House.
Namaqua ... C	—	—	2 0	2/6 July '91	2 0 0	194,351	Namaqualand	34, Leadenhall-bldgs.
New Aurora West G	18/- 20/-	16/6	1 0	5% Mar., '93	—	30,000	Witwatersrd	1, Crosby Square
N. Belgium Land ...	3/- 4/-	4/	1 0	—	0 17 0	167,362	Waterberg	33, Cornhill.
New Black Reef ...	7/- 8/-	7/-	1 0	—	1 0 0	76,000	Witwatersrd.	9, King William st
New Chimes ... G	2⅝ 2⅞	2⅝	1 0	2/- Feb., '95	1 0 0	70,000	Witwatersrd.	8, Old Jewry, E.C.
New Clewer Estate	1⅛ 1⅜xd	1 1/16	1 0	10% Feb. '95	1 0 0	100,000	Lydenburg	120, Bishopsgt st. Wn
New Croesus ... G	2⅝ 2⅝	2 3/16	1 0	5% Aug. '92	1 0 0	195,000	Langlaagte	4, Bishopsgt.-st. Wt.
New Edwin Bray	—	—	7 0	—	7 0 0	65,200	De Kaap	23, College Hill
New Gordon ... D	4/ 5/	4/	1 0	5% Dec. '89	1 0 0	560,250	Griqualand	110, Cannon-street.
New Heriot ... G	9¼ 9½	8⅜	1 0	20 p c Dec. 94	1 0 0	195,000	Witwatersrd.	1, Crosby Square.‡
New Jagersf. ... D	20 21¼	18¼	10 0	10s. Nov., '94	10 0 0	100,000	Transvaal	5, Copthall-buildings
N. Kleinfontein G	4⅜ 4⅝	4/-	1 0	12½pc Dec, '94	1 0 0	150,000	Witwatersrd.	Winchester House.
New Klerksdorp ...	7/3 7/9	6/	0 10	—	0 8 0		Transvaal	110, Cannon-street.
New Louis D'Or.. G	3/- 3/6	2/9	1 0	—	1 0 0	100,000	Witwatersrd.	53, New Broad-stree
New Primrose ... G	6¼ 6⅝	5¾	1 0	20% Dec. '94	1 0 0	230,000	Witwatersrd.	2, Draper's-gardens.
New Rand ...	par. ⅛ pm.	p. ⅛ pm	1 0	—	1 0 0	110,003	—	Bartholemew-house.
New Rietfontein G	2⅞ 3⅛	2⅞	1 0	—	1 0 0	160,000	Witwatersrd	Warnford-ct., E.C.
New S. Augustine D	7/3 7/9	7/	1 0	—	0 19 6	234,583	Griqualand W	30-1, St. Swithin's-ln
New Salisbury ... G	3⅝ 2⅞	3⅛	0 10	2/- Jan. 94	0 10 0	93,000	Witwatersrd.	1, Crosby-square.‡
New Spes Bona .. G	34/ 35/	32/	1 0	—	1 0 0	113,801	Witwatersrd	24, N. John-st., L'pl
N. Ophir Concess.	2/6 3/6	2/6	1 0	—	0 18 6	111,857	E. Coast Africa	31, Lombard-street.
New Virginia ... G	3/9 4/3	4/-	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel ... G	6 6¼	5⅞	1 0	10% Dec. '94	1 0 0	160,000	Witwatersrd.	1, Crosby-square.
Nourse Deep ...	4⅜ 4¾	4⅜	1 0	—	1 0 0	375,000	—	120, Bishopgt.-st., Wn.
Nyassa (Bearer) ...	17/6 22/6	17/6	1 0	—	1 0 0	—	Mozambique	Bartholemew House
Oceana ...	2⅛ 2⅜	2/	1 0	25/- Nov. '89	1 0 0	326,000	Transvaal	4, Sun Court, E.C
Oceana Develpmnt	1 7/16 1 9/16	1 7/16	1 0	—	1 0 0	50,000	Transvaal	4 Sun Court, E.C
Orange F.S.E. ... D	4¼ 4¾	4	1 0	1/- Sept., '94	1 0 0	284,000	Orange F. State	10, Moorgate-street.
Orion ... G	4¼ 4⅜	4/-	1 0	25% Jan. '95	1 0 0	30,000	Witwatersrd.	8, Old Jewry.
Otto's Kopje ... D	5/9 6/3	5/9	1 0	—	1 0 0	437,888	Kimberley	110, Cannon-st., E.C.
Paarl Central ... G	26/6 27/6	24/	1 0	—	1 0 0	138,750	Transvaal	120, Bishopsgt st. Wn‡
Pardy's Mozambq.	3⅛ 3⅜	2⅝	0 10	1/- Jan. 95	0 10 0	13,000	S. E. Africa	Broad St. Avenue.
Piggs Peak, New G	7/- 8/-	7/6	1 0	—	0 17 0	230,326	Swazieland	6, Queen-street-place
Potchefstroom ... G	7/- 8/-	6/6	1 0	—	1 0 0	161,000	Potchefstroom	19, Bury-st., E.C.
President Land ...	5/- 6/-	5/-	1 0	—	1 0 0	193,325	Transvaal	17, Basinghall Street
Princess Estate G	2 5/16 2 7/16	2⅛	1 0	—	1 0 0	72,046	Witwatersrd.	33, Cornhill, E.C.
Randfontein ... G	23/6 24/6	22/-	1 0	—	1 0 0	1,916,500	Witwatersrd	59, Holborn Viaduct.*
Rand Mines ... G	24¼ 24¾	21¼	1 0	—	1 0 0	332,708	Witwatersrd.	120, Bishopsgt st. Wn‡
Read's Drift ... D	15/ 17/6	16/3	1 0	—	1 0 0	51,000	Transvaal	19, Finsbury circus.
Robinson ... G	8⅛ 8⅜	8	5 0	5/- Jan. '95	5 0 0	543,750	Transvaal	28, Austin Friars, E.C
Roodepoort Deep	3¼ 3⅜	2⅜	1 0	—	1 0 0	110,000	Witwatersrd.	8, Old Jewry, E.C.
Roodepoort Un. G	4¾ 5	4¼	1 0	10p.c. Dec. '94	1 0 0	100,000	Witwatersrd.	Warnford-court.‡
Sheba ... G	28/6 29/6	27/-	1 0	1/- Sept. '94	1 0 0	614,450	Lydenburg	85, Gracechurch-st.
Sliati ... G	9/ 10/	8/6	1 0	—	0 17 6	625,000	Zoutpansberg	4, Sun Court, E.C.
Simmer & Jack ... G	12¼ 12½	11⅜	1 0	10% Feb. '95	1 0 0	85,000	Witwatersrd.	8, Old Jewry.
S. A. Gold Trust ...	3⅜ 3⅝	3¼	1 0	6/6 Jan. '95	1 0 0	220,000	South Africa	8, Old Jewry.
Southern Land ...	5/- 6/-	5/-	1 0	—	0 15 0	20,000	Griqld. W. &	19, St. Swithin's-ln.
Southern Land ...	8/3 9/6	8/6	1 0	—	1 0 0	20,000	Brit. Bech	19, St. Swithin's-ln.
South West Rand	1¼ 1⅜	1¼	1 0	—	—	—	—	—
Spitzkop (New) G	14/6 15/6	14/6	1 0	—	1 0 0	99,670	Lydenburg	15, Bishopsgt-st, Wt.
Stanhope ... G	2¼ 2⅜	2⅛	1 0	20% Jan. '95	1 0 0	34,000	Witwatersrd.	1, Crosby Square.‡
Sutherland R. ... G	22/6 23/6	21/6	1 0	—	0 19 6	220,000	Zoutpansberg	Dashwood Ho.
Teutonia ... G	—	—	1 0	—	1 0 0	96,000	Witwatersrd.	8, Old Jewry.
Thistle Reef ... G	6 1/-	6	0 5	—	0 5 0	150,000	Barberton	15, Angel-court, E.C
Trans. Coal Trust ...	1⅝ 1⅞	2¼	1 0	1/- Sept. '94	1 0 0	439,965	Witwatersrd.	Broad-st. House, E.C
Trans. Est. & Dev.	15/6 16/6	15/	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.C.
Trans. Gold Exp. G	3 5/16 3 7/16	3 5/16	1 0	1/- Jan. '95	1 0 0	250,000	Transvaal	Suffolk House, E.C.
Trans. Land ...	6/- 7/-	7/	1 0	—	1 0 0	79,915	Transvaal	Suffolk House, E.C.
Trans. Land ...	3/6 4/6	3/6	1 0	—	0 15 0	169,993	Transvaal	33, Cornhill.
Treasury ... G	—	—	1 0	12½% Sep. '94	1 0 0	36,000	Witwatersrd.	Johannesburg.
Turffontein Est.	—	—	1 0	2½ Nov. 94	1 0 0	47,007	So. Africa	130, Winchester Ho.
Un. Ivy Reef ... G	1 1⅛	1	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal	110, Cannon-street
U. Langlaagte (N) G	2 7/16 2 9/16	2¼	1 0	—	1 0 0	100,000	Witwatersrd.	23, St. Swithin's-ln.
United Pioneer ...	22/6 23/6	22/6	1 0	—	1 0 0	75,000	—	16, S. Helen's-pl., E.C.
Van Ryn ... G	5¼ 5⅝	5	1 0	—	1 0 0	99,810	Witwatersrd.	1, Crosby-square.‡
Village Main Reef	5⅛ 5½	5⅛	1 0	—	1 0 0	132,00	Witwatersrd.	8, Old Jewry.
Wassau ... G	—	—	1 0	—	1 0 0	130,000	Gold Coast	147, Cannon-street.
Wemmer ... G	8⅝ 8¾	8⅝	1 0	10% Nov. '91	1 0 0	55,000	Witwatersrd.	19, Bury-street.‡†
Willoughby's Con	1¼ 1⅜	1⅜	1 0	—	1 0 0	700,000	Mashonaland	3, Copthall-bldgs.
Witwatersrand G	3⅞ 4⅛	3⅞	1 0	—	1 0 0	250,000	Witwatersrd.	19, Bury-st., E.C.
Wolhuter ... G	7 7¼	6¼	1 0	10 p.c Apr., '94	1 0 0	120,000	Witwatersrd.	Warnford-court.†
Wolverand ... G	5/16 7/16	5/16	1 0	2/- Apr., '94	1 0 0	18,750	Transvaal	Blomfield House.
Wolverand ... G	—	—	1 0	—	0 18 0	39,021	Transvaal	Blomfield House.
Worcester ... G	4⅛ 4⅜xd	4	1 0	20% Jan. '95	1 0 0	90,727	Witwatersrd.	8, Old Jewry.‡
Zambesia Explora.	2⅝ 2⅞	2⅝	1 0	—	1 0 0	45,000	Transvaal	13, George-st., E.C.

REPORTS FROM THE MINES.

BRITISH MINES.

DEVON GREAT CONSOLS.—William Clemo, February 28, 1895: Watson's. The water is drained to the 160 fathom level, and we hope to get it in fork to the 172 or bottom level in the course of a fortnight. We are glad to say that the weather, although still severe, has within the past few days become more favourable for our surface operations. The stopes throughout the mines continue of the same value as fully reported on the 21st inst.

LEADHILLS.—W. H. Paul', February 26: Brown's vein. During the past month the 160 fathom level has been driven north of Jeffrey's shaft 6 fathoms, and is now extended therefrom 31 fathoms 5 feet, reset to seven men at 87s. 6d. per fathom; vein in forebreast 4½ feet wide, composed of kindly spar and stone with good spots of lead ore and letting out water. The 160 fathom level is extended 40 fathoms 2 feet south of Wilson's shaft, set to seven men at 82s. 6d. per fathom; vein 4 feet wide, composed chiefly of stone and unproductive. A stope over the 160 fathom level south of Jeffrey's shaft set to two men at 42s. 6d. per fathom will yield 20 cwts. of ore per fathom. No. 2 stope over the 145 fathom level north of Jeffrey's shaft set to four men at 30s. per fathom, will produce 30 cwts. of ore per fathom. No. 3 stope over same level north of Jeffrey's shaft, set to four men at 32s. 6d. per fathom, is worth 25 cwts. of ore per fathom. No. 4 stope over this level north of ditto, set at 35s. per fathom, is now yielding 20 cwts. of ore per fathom. The 115 fathom level south of old stope above the 130 fathom level, north of Jeffrey's shaft, is set to four men at 90s. per fathom; vein here 7 feet wide, chiefly spar, strongly mixed with lead ore, and will produce from 35 cwts. to 40 cwts. per fathom. The 115 fathom level is extended 138 fathoms 1 foot north of Jeffrey's shaft, and set to three men at 82s. 6d. per fathom; vein therein more promising in character, and letting out a little water. The 100 fathom level is now advanced 191 fathom 1 foot south of Wilson's shaft; set to four men at 67s. 6d. per fathom, vein containing a good mixture of spar, and has a promising appearance. The crosscut east at the 100 fathom level south of Wilson's shaft, now extended 45 fathoms 5 feet 9 inches is, according to calculations, within some 8 fathoms of reaching Raik vein; ground here continues much the same. This point is set to seven men, at 120s. per fathom. The drift on eastern part of vein above the 100, south of Wilson's shaft, is suspended, and a rise set thereon to two men, at 67s. 6d. per fathom. Vein 3 feet wide, worth 35 cwts. of ore per fathom. The 85 fathom level south of Wilson's shaft now driven 154 fathoms 3 inches, is set to four men, at 72s. 6d. per fathom. Vein 4 feet wide, mostly stone, with a little spar. A stope over this level, south of Wilson's shaft, set to four men, at 35s. per fathom, is producing 40 cwts. of ore per fathom. A stope over the 70 fathom level, south of main rise and south of Wilson's shaft, set to four men at 35s. per fathom, is worth at present 80 cwts. of ore per fathom. A stope above the 50 fathom level south of flat rod shaft, set to four men, at 35s. per fathom, will yield 25 cwts of ore per fathom. A stope below the 35 fathom level south of flat rod shaft, set to four men at 37s. 6d. per fathom, is producing 40 cwts. of ore per fathom. A stope above the 35 fathom level south of same shaft, set to four men at 35s. per fathom, will yield 30 cwts. of ore per fathom.—Sarrowcole vein, Gripp's adit, now extended 92½ fathoms south of George's Roust vein, is set to three men at 37s. 6d. per fathom. The vein here is 4 feet wide, composed of a kindly stone strongly mixed with spar, showing a little ore at times and of a promising character for bearing ore: water also oozing from the forebreast. We are pushing on the dressing and all surface operations with the utmost speed possible.

POLBERRO.—February 23: We continue to make satisfactory process in sinking the engine shaft, and to intersect branches containing tin in sinking. The last parcel produced 10 lbs. tin to the ton. We have commenced to sink the winze on Chappel's Down-right lode, west of crosscut, and below the 26 fathom level, in a lode yielding 55 lbs. tin to the ton. The last parcel from the 26 crosscut north yielded 33 lbs. tin to the ton. There is no other change in the mine.—(Signed) Charles Thomas, John Harper.

PRINCE OF WALES (East Cornwall Tin Mining Syndicate.)—S. Roberts, James Pyke, February 27. In the 193 crosscut north water issues from all parts of the end as much as the nature of the ground will admit. It is composed of hard capel, spar, and killas. Every endeavour is being made to push on the end as rapidly as possible. There is no perceptible change in the crosscut north at the 180 fathom level.

SOUTH CONDURROW.—February 27: The trip plat near the bottom of Marshall's shaft is completed and the shaftmen set to rise in the back of the 167 fathom level. We are anxious to communicate the 167 with the bottom of the midway level, which will open out ground for stoping, and will improve the ventilation in the bottom of the mine. The lode in the rise referred to is worth £10 per fathom. The 167 end west is worth £8 per fathom. The stope in the back of the midway level is worth £10 per fathom. The 150 end west is in a large lode yielding stones of tin. The stope in the back of the 153 is worth £9 per fathm. The stope in the bottom of this level is worth £10 per fathom.—(Signed), Wm. Rich, Wm. Thomas, Fred Rich.

WEARDALE LEAD.—Report on Weardale Company's mines for the week ending February 23: Groverake. Adamson's drift west. Forehead still in plate rider, but more mixed with sparry strings and a little ore. Vein in 200 worth 14 cwts. per fathom.—Bolt-burn. A crosscut north from Watts' level has been started to ventilate the east end of north flat workings. Stopes in north flats worth 36 and 36 cwts. per fathom. Stopes in south flats worth 36, 45, 40, 34, 26, 34, and 22 cwts. per fathom.—Greenlaws. Watson's drift. Vein composed of spar, about 4 feet wide, with some ore, but none to value.—Sedling. Driving 64 level east. Vein 3½ feet wide, of good fluorspar mixed with ore, much improved, worth 16 cwts. per fathom.—Driving 64 level west in plate above Scar limestone. Vein 2 feet wide, chiefly fluorspar, with a little ore. The 56 fathom level is now opened 133 fathoms east from drawing shaft. Ore raised for week, 21 ton. Frost still very severe, and nearly all work is suspended.

WHEAL AGAR.—February 23: Setting report. At the 270 we have proved the lode to be 33 feet wide, producing low quality tinstuff throughout. In our last we reported the intersection of a soft friable spar and flucan course, on which we have commenced to drive east and west by boring machinery at £11 per fathom. Judging from the character and make an improved lode may be met with at any blast. Having disengaged the main rods at the 285 we have reduced the number of shaftmen to six, who are engaged clearing the 255 west on the north part of great lode with the object of developing same. 245 fathom level west on north part of great lode, in the present end we have intersected a crosshead which has interfered with the position and make of the lode, and for the present necessitating an alteration in the drive to pick it up again. The 245 crosscut south is being pushed as rapidly as possible, by boring machinery, at £11 per fathom, with the view of intersecting the south or engine lode. This we hope to do in a month or six weeks from now; when done there will be a good section of ground opened up for stoping, &c., at once. In the eastern section of the mine we are driving south to intersect the chute of tin in conjunction with the great and engine or south lode. We hope to be in line with this in two weeks; then drive under and in line with the winze now sinking in the bottom of 235, by nine men, in a lode worth £12 per fathom. The lode in the 245 west, in this part of the mine, maintains its size and worth, but seeing this point can be more economically and rapidly worked from the last-mentioned crosscut we have taken the men from this end and put them to sink the winze last referred to. We have one stope working in the bottom of this level by 12 men at 5s. per ton, lode worth £20 per fathom. In the bottom of the 225 we are also sinking a winze in a lode worth £10 per fathom, when communicated with the 235 will give us additional ground to work on, by which we hope to increase the returns. The 215 fathom level to drive west on south lode by six men at £9 per fathom, lode worth £8 per fathom. The tribute pitches were set for one or two months four weeks since, consequently, there is no change in that department. All the machinery is in good order, and working well.—(Signed) W. Hambly, R. Daniel, M. D. Penhale.

COLONIAL, INDIAN, AND FOREIGN MINES.

DE LAMAR.—From the report for January: Intermediate winze above 4th level the average width of the vein during the month 4 feet 1 inch, assaying $23 in gold and $2·30 in silver, equal $25·30 per ton. 77 feet vein 4 feet level, east hanging and footwall sections 3rd ore shoot, operations at these points were suspended early in the month. The vein became too poor to work, having reached the easterly extremity of the No. 3 ore shoot. 77 feet vein 4th level west, average width of vein 3 feet 10 inches, assaying $19·25 in gold with traces of silver. Present length of this ore shoot 150 feet. 77 feet vein 9th level east, average width of vein 2 feet, assaying in gold $15·60 and in silver $8·60, equal to 24·20 per ton. The vein

became very narrow, and apparently the easterly boundary of the ore body has been reached. The level was, therefore, suspended, and crosscuts commenced northerly and southerly from its face; these have been driven 18 feet 6 inches in each direction. The ground passed through is hard porphyry. 77 feet vein, winze below 9th level east, average width of vein for the last few feet 3 feet, assaying in gold $17 and in silver $3·60, equal to $20·60 per ton. In the bottom the pay ore has left the vertical line of the winze and pitched easterly, 77 feet vein, 10th level, east. The character of the ore passed through has been of low grade. Crosscut from 9th vein, 8th level, north, this crosscut is 85 feet long. It has intersected two veins, the first being No. 8 vein, value $12 per ton, the second vein is narrow and poor. Crosscut north from No. 5 station, incline shaft, it has been driven through hard porphyry. We are still exploiting the Hamilton vein from the crosscut with good results. Raise above 77 feet vein, above 4th level, the average width of the vein has been 3 feet, and value $16 to $18, chiefly gold. The identity of this vein is not very clear as yet, whether it is the 77 feet vein or a branch therefrom. Crosscut from No. 5 vein, to 77 feet, 6th level, this crosscut was intended to strike to 77 feet vein in its second ore shoot. The intervening ground was 46 feet. The width of the 77 feet vein where entered, is 20 feet of an average value of $16 in gold.—Summercamp Group. The reported length of the main crosscut is 186 feet; advanced for the month, 34 feet; total, 219 feet. The ground has recently been very wet, otherwise no change has occurred. During the month the operations performed in developing the veins already cut have been confined to No. 3 vein; at present we are sinking in one of the good bunches of ore found in this vein.

DON PEDRO.—Maquiné mine monthly report, January 31.—Operations for the month have been carried on satisfactorily, considering the small force. The tonnage has been very much more, and been extracted with less cost, owing to the western ground being dry. The output, however, is somewhat lower, owing to the stopes falling off in quality.—Main drainage. Shaft sunk for the month 1 fathom, total distance sunk under the 60 being 8 fathoms. Gold raising from 50 north. The north drivage has been extended another two fathoms. This has been driven in a more easterly direction to intersect the lodes above. At this date the point of back laths has just penetrated the lode.—Incline west. This early in the month met with same old excavations as mentioned in my letter of 15th inst. Since then we commenced stoping operations south of this incline. Here also we met with old workings, but east of this the ground is all standing. The lode here is large and of moderate quality. From the north side of this incline we started a vertical rise as an exploration, and after rising 6 feet we discovered another lode, which we suppose to be the underlie lode. This lode is about 4 feet thick, which is about the usual size of the underlie lode around about the 25 horizon. This lode formerly carried a line of gold, and the largest piece of gold ever taken out of the mine was taken from this lode, measuring 21 inches. Up to date sufficient work has been done to prove whether the line of gold still exists. On this lode we have commenced stoping operations westward in general work of fair quality. Stoped up to date 1 fathom 5 feet. Incline west 2 fathoms 3 feet. Stoped south 15 feet.—Incline east. The lode here is very large, but of low quality, especially the upper part. Towards the footwall the lode is of good average mineral. Stoped for the month 3 fathoms. Another stope has been started north of No. 1 stope east. The lode here is also large, and the average work is of fair quality. Stoped for the month 1 fathom. These two stopes will now be suspended, and the force will be put to raise gold on the underlie lode and the western ground above the 50 horizon.—60 level south. The ground here is very wet and troublesome for driving. The lode is of very fair quality, but progress has been very slow.—Incline shaft repairs. We have a force constantly on this work, and old rotten timbers are being taken out and steel sets put in their place.—Morro de Santa Anna. The drivage has now been extended 64 feet 10 inches in a lode averaging from 4 to 6 feet thick, and of a good appearance.

GREAT BOULDER.—Mr. Z. Lane, engineer to the company, writes under date Perth, Western Australia, January 23, as follows:—The Great Boulder Mines promise well, and but for the drought we should be crushing. Could not get any machinery carted during the drought. Now everything is on the road, and I have made satisfactory arrangements to attach the first 10 to the Lake View engine, which saves time as well as money, and it will only cost us half the wages to run it. I am also breaking some very good stone, and will give a good crushing as soon as I can get the water pumped in. It has rained all over Australia now, and as far as the Boulder is concerned there will be ample water for all purposes, and very few of the other companies will be in such a good position.

KLERKSDORP GOLD AND DIAMOND.—Extract from manager's letter, dated Klerksdorp, February 2, respecting the company's mynpachts: An immense lot of claims have been pegged out in the immediate neighbourhood of the mynpachts, on a supposed extension of the Boffelsdoorn Reef, which is supposed to run through part of the mynpacht.

KURNALPI.—The stone raised from the Kurnalpi Block prospects well by dollying; real good battery stone. A cablegram received since the letter was dispatched states: 5000 tons available for treatment.

KINSELLA.—Copy of mine manager's report, January 17: The Mine. We have broken sufficient stone from the quarries for loadings, and the men we had working there are now sinking the north shaft on the Nil Desperandum claim to hole to the north drive from the south shaft on that claim for ventilating purposes. Some of the quartz they were breaking yesterday was very rich, 3 to 4 ounces stuff, though on the two previous days it was under an ounce. The lode is 4 to 5 feet wide. As soon as we hole we purpose continuing the southern drive from south shaft at water level as rapidly as possible towards main shaft, and will then, if main shaft drains us, start a winze in the bottom of level to connect with the suggested crosscut at 100 feet. I am glad to say some of the main shaft timber is on the ground, and we shall commence timbering, and endeavour to sink again as soon as possible.—(Signed) F. W. Grey.

MOUNT ZEEHAN (TASMANIA).—Manager writes for week ended January 15:—Argent section. Main engine shaft, No. 4 lode, 72 feet level south winze sunk 3 feet 6 inches, total 38 feet 6 inches. Lode 1 foot 3 inches. Have started to rise from No. 2 level, as 15 feet only wanted to connect.—Silver Queen section. New shaft No. 1 level north extended 15 feet, total 194. The stringer we are driving on carries carbonate of iron pyrites and a little galena. No. 1 winze on No. 8 lode sunk 10 feet, total 23 feet. Formation full size of winze 1 foot 3 inches, being good ore.—Machinery. Boilers now in splendid condition.—Mill. Started crushing on Zeehan-Montana Company's ore.

NIGEL.—Report for quarter ending December 31: Mine, eastern section. No. 3 shaft is now down 1135 feet, and at the 11th level the reef averages from 5 inches to 7 inches wide, of an assay value of from 6 dwts. to 5 ounces per ton. Driving at the 8th level is being pushed ahead to connect the eastern and western sections of the mine, the drive at the 8th level west being in 429 feet.—Western section. No. 4 shaft is now sunk to the 8th level, where the reef has been struck, averaging 5 inches in width, and assaying 2 ounces 4 dwts. per ton. No. 7 shaft is the deepest in the western section of the mine, being sunk 838 feet, and sinking is being continued, the reef being of fair width and value. No. 9 shaft is sunk to a depth of 512 feet No. 10 shaft is now sunk to the 5th level, and is being continued to the 6th level. No. 12 shaft is now down 571 feet, and is opening out very promising, the reef being being 9 inches wide, and assaying an average of 2 ounces to the ton. Driving along the reef north and south is in progress, the reef continuing good. The total amount of sinking, driving, &c, for the quarter is as follows:—Sinking 196 feet, driving 1688 feet, winzes and rises 588 feet, crosscuts 133 feet, total 2575 feet. During the quarter there have been developed 24,000 tons of ore, and 7200 tons of ore have been crushed. At its deepest working points, the mine is opening out very satisfactorily, the reef maintaining its width and value.—Battery. The necessary repairs, and the addition of another five stamps to the original 25, having been completed, the battery of 30 stamps is now in good working order. The abnormally heavy rains during the last month were the means of retarding the development of the mine at the lower levels, and also the retreatment work. At least 300 tons more of tailings would have been treated, had it not been for the wet weather. The result of Mr. J. Wilson's contract to retreat our tailings residues, has, so far, been satisfactory. A small return for royalty has been received, and it is anticipated that the contract will prove remunerative to our company. During the period under review, a considerable amount of money has been expended in repairs to old buildings, the erection of new buildings, the purchase of new machinery, and other permanent works.

NORTH SHEBA GOLD AND EXPLORATION.—The secretary writes: I beg to send you an extract of a letter received from Captain A. C. Janson (our manager at the mines) dated January 16: "The shale driven through I consider a most favourable indication. It is highly ferruginous, and in this district I have only met with this identical class of shale on the Sheba line. The pyritical ore on grass at mouth of the drive looks extremely promising. The shaft immediately above the old working appears to have been put down to connect with the drive. Above the shaft there are about 5 tons or 6 tons of ore laying, from which I took from 40 to 50 pannings; the result was a most uniform one. From the heap I also scraped some fine stuff, and, without crushing, got good pannings. I can assure you that I was rather pleased at the results." Since writing the letter above referred to, our manager has cabled as follows:—"Have formed a very high opinion of North Sheba; the width of the reef is 7 feet. Working day and night. Pannings give excellent results. Shall commence crushing ore at the end of the month. The delay in crushing has been caused by native labour being scarce."

OURO PRETO.—Passagem Mine report, December. The 470 metre level north-east has been extended 4·40 metres. This heading is carrying a small branch of quartz near the floor, but upper part of end is in hard quartzite. Crosscut at 435 north-east has been advanced 0·60 metres. The lode in this crosscut is still very white, carrying but little pyrites. The 400 metre level north-east has been extended 3·60 metres. This heading is going forward in full lode, chiefly composed of quartz carrying patches of pyrites and lines of tourmaline ores throughout. The 365 metre level north-east has been advanced 3·10 metres. This heading is advancing through a bar of very hard quartzite rock. The 365 metre level south-west has been extended 5·50 metres through a hard floor of schist. The 215 metre level north-east has been advanced 4·90 metres. This end is going full size in lode chiefly composed of quartz carrying patches of pyrites throughout. The 315 metre level north-east has been advanced 2·30 metres through very hard quartzite rock without any ore. The 435 end north-east of No. 2 shaft has been extended 1·80 metres. This end is advancing full size in lode chiefly composed of quartz carrying patches of pyrites and lines of tourmaline ores. Rise from stope in No. 2 crosscut at 365 north-east has been risen 2·40 metres The lode here is still very white and poor.

PAHANG CORPORATION.—I beg to submit progress report for the month of November: Pollock's, No. 1 below adit. Winze B was sunk a further depth of 17 feet, total depth 27 feet. The lode was cut early in the month; it proved to be about 2 feet wide, and has carried ore of very fair quality down to the present depth. Work in the underhand stope at the west end of shoot has been discontinued as the water became very troublesome. There are three sections of stopes being worked over the level, which continue to give very good returns. One of them I think will be worked up to the old adit level by the end of current month. The other two sections may last from two to three months longer.—No. 2 below adit. The drive west on the course of the lode has been driven 24 feet from the crosscut; country rock very hard. There is just a mere thread where the lode ought to be to guide us, but as we are a considerable distance east of winze A No. 1 below adit we may have to drive a good distance yet to get into the shoot of tin ground.—No 3 below adit. The drive going east has been advanced a further 28 feet, total from crosscut 36 feet. We have met with a few tin stones during the month, sufficient to encourage us to keep driving. In the present end there is no tin showing. Should there be no improvement at the end of current month I intend ceasing work here for a time at least. If a payable shoot of ore could be met with in this direction it would enhance the prospects of Pollock's mine very much, as the drive is going under very high country and all virgin ground. The west drive was driven a further 5 feet north on crosscourse, total north 13 feet, and 24 feet east from crosscourse on the lode which in the present end is 2 feet wide, and towards the end of the month ore of very fair quality was met with. Jeram Batang No. 1 above adit west was advanced a further 22 feet, total from crosscut 256 feet. The lode is 4 feet wide at present but is not carrying much tin. As the drive is getting nearly vertical under where the good ore was met with in No. 2 above adit there ought to be an improvement shortly.—No. 2 above adit. In the west drive early in the month a winze was started at a point 25 feet back from the end of drive to go down to No. 1 above and has been sunk to a depth of 19 feet. The ore coming to hand is not very good, but I think the best part of it is being left on the hanging wall side of winze. In the east drive at this level the winze A has been restarted. It had been previously sunk to a depth of 9 feet. A further 14 feet has been sunk making the total below level 20 feet. The lode is about 3 feet wide and is producing payable ore. The new winding plant for Pollock's shaft has arrived and a good portion of it is landed at the mine, and as soon as the rest of it has been got up to the mine I will proceed with the erection of it.—(Signed) W. Stranghan.

SHEBA GOLD.—The following report has been received from the general manager for the month of December, 1894:—Mine. The ore sent to the mill during the month was extracted from both the east and west stopes in No. 4 level, from No. 7 level, between Nos. 8 and 9 levels, and from Annie's Fortune. About 1 ton of ore was extracted from the old underhand stope from Nos. 3 to 4 levels, which produced 100 ounces of gold.—No. 4 level. During the month stoping both in the east and west stopes. The former was very rich for a few days. The west end looks fairly well, though the shoot of ore is narrowing. No. 5 level extended west 4 feet 6 inches. No. 11 north crosscut driven 12 feet 6 inches. No. 10 north crosscut driven 11 feet. No. 6 north crosscut driven 13 feet 3 inches.—West stope. During the month about 200 tons of rock were broken in the old west end stope, and thrown into No. 21 winze, in order to prepare the stope, so that ore can gravitate through it from the quarry down to No. 7 level, from whence it will be trammed to the new mill.—No. 7 level. This has been extended west 20 feet.—Nos. 8 and 9 levels. Driving has been suspended for the present, as the stoping between the two levels interfered with tramming.—Low level tunnel. This was extended west 69 feet during the month, making a total of 1385 feet. No. 1 north crosscut was driven 79 feet 6 inches, and connected with No. 7 level on December 23, thus connecting the tunnel with the mine. This distance from the tunnel to the reef 197 feet 6 inches, was driven in 50 days. The size of the crosscut is 7 feet by 7 feet. By making this connection we shall be able to drain the mine from the quarry to No. 7 level through it, and thus save hoisting water above that level.—Annie's Fortune block. Tunnel driven 14 feet. 1600 tons of ore have been broken and sent to the mill from this quarry during the month. For the first three weeks in the month the indications were that we should have a very fair crushing, but towards the latter part of the month it fell off considerably. I am feeling very hopeful regarding it, for although the 5600 tons crushed from it have only averaged a little over 7 dwts., still there is an immense body of it, and the indications look very favourable.—Edwin Bray block. The incline shaft sunk 22 feet 6 inches. The No. 2 north crosscut driven 2 feet.—Oriental block, Good Hope shaft. The water has all been pumped out of this shaft and the various drives on both levels. The lower level has been balk-headed on both ends of the shaft, so as to form reservoirs, and stop the water from running into the shaft. The skip-road has been put in, and two pumps placed in position. The shaft is now being cleaned up preparatory to sinking.—Rowe's winze. This has been sunk 15 feet 6 inches.—Surface improvements at the mine. The surface at the entrance of No. 5 level has been connected with the Good Hope shaft on the Oriental Block by a ground tram, over which fuel is transported a distance of about 1575 feet, for supplying the pumping and hoisting engine on the Good Hope shaft.—The new mill buildings. During the past month the balance of the framework of the new mill has been erected, and the roof of the building put on. The mortar blocks are in, the battery frame and ore bin erected, and the mortars placed. This work is being pushed on rapidly. The boarding house is nearly finished.—Low level tunnel. We have commenced laying the permanent double track in the low level tunnel, which will be continued down to the new mill. Preparations are also being made for hanging the electric cable and lighting wires in the tunnel, which system will extend from the new mill, and along all the lower levels of the mine.

ST. JOHN DEL REY.—Mr. Chalmers' mining report for the month of January was received on Monday, per Pacific steamer *Liguria*, with advices to 4th February. Tram Level stope C is 29 feet wide consisting of 23 feet rich mineral on the south side and 6 feet of mixed mineral on the north. Stope D is 30 feet wide, composed of 17 feet solid mineral, 8 feet mineralized killas, and 5 feet solid mineral, heavily charged with arsenical pyrites. Stope F is 31 feet wide, all solid mineral. The gold produce for January is estimated at a little over £8000. Mr. Chalmers' time appers to have been fully engaged on the surface works and amalgamation process, and in getting forward the remaining 30 head of stamps. A heavy thunderstorm towards the end of the month did considerable damage at the Praia Works, which have been since repaired. No information is to hand as to the progress of the second borehole since the 29th January, when the hole had been pierced 50 feet. The duty done by the 70 stamp mill has improved, and now averages 2 tons per head per 24 hours. The same morning a telegram was received giving the produce for the first 18 days of February as 14,500 oitavas, approximate value £5450. Heavy rains have interfered with the work, and the borehole has been delayed.

WASSAU (Gold Coast).—The following has been received by the secretary:—It is with great regret I have to inform you of the death of Mr. F. J. Crocker, which took place on 30th January last. Mr. William Cleaver joined the board on 4th January last. The produce of the mine for the month of December last (referred to in our circular of 28th ult.) realised £846 13s. 4d., being 217½ ounces standard. The mill worked seven days nine hours, and crushed 229 tons of ore, giving a yield of 19 dwts. standard per ton. Cablegrams have since been received advising the remittance for last month as 279 ounces bullion, and a yield of 16 dwts. per ton At the ordinary annual general meeting held on 12th June last year, you were informed that Mr. Sam, our manager at the mine, had to come to England for the benefit of his health. That being restored, he returned to the mine per s.s. *Accra*, which left Liverpool on 9th inst. Mr. Sam strongly advised the directors to acquire the adjoining property belonging to the Cinnamon Bippo Gold Mine (Limited). This property, containing a length of lode of about 1000 fathoms, and being considered of great value, the principal vendors, the late Mr. Crocker, Mr. Swanzy, and Mr. Cleaver purchased it for 15,000 fully-paid shares of this company, and arranged for it to be transferred gratis to the Wassau Company, the only consideration being some small liabilities and the cost attaching to the transfer.

LION (MOZAMBIQUE).—The manager, Mr. Niness, reports progress for the months of November and December:—No. 1 drive 48 feet, total advance 230 feet. Crosscut west on reef No. 1 total advance 31 feet. The composition of the ground in No. 1 drive is slate and decomposed granite. Some of the richest reefs in Manica are found in this strata. I have a fair gang of mining boys for each drive, and have resumed No. 2 drive; total distance when resumed, 129 feet. We have cut more water in this drive, and the ground has come in softer, which will necessitate timber. There is any quantity of good mine timber on the ground, so that we shall not stick for want of that commodity. It is my opinion we are nearing a reef. The survey of the railway is being made between Chimoio and Umtali. When the line is constructed it will be a little more than a stone's throw from this property.

ROBINSON.—From directors' monthly report, January: Mine. Quartz milled, 9597 tons.—Permanent works. Main incline shaft (west) sunk 39 feet, main incline shaft (east) sunk 8 feet, total, 47 feet.—Development. Drives 595 feet, raises 295 feet, crosscuts 160 feet, total 1097 feet.—Main incline shaft (west). Sinking below the 10th level 39 feet.—5th level: Driving west on main reef 8 feet, driving west on south reef 43 feet.—6th level. Driving west on main reef 34 feet, driving east on south reef 36 feet, raises 27 feet.—7th level. Driving east and west on main reef 20 feet, driving east and west on south reef 51 feet, raises 41 feet, crosscuts 34 feet.—8th level. Driving east and west on main reef 79 feet, driving east and west on south reef 71 feet, raises 7 feet.—10th level. Cutting the station 7 feet.—Main incline shaft, east. Sinking below the 10th level 8 feet.—5th level, driving east on main reef 11 feet, raises 72 feet.—6th level. Driving east on main reef 22 feet, driving west on south reef 38 feet, raises 48 feet, crosscuts 77 feet.—7th level. Driving east on main reef 49 feet, driving west on south reef 47 feet, raises 61 feet.—8th level. Driving west on main reef 45 feet, driving east and west on south reef 41 feet, raises 39 feet.—10th level. Cutting the station 42 feet. Total 1097 feet.—Mill. Stamps at work 70, net running time 29¾ days, tons crushed 9597, tons per stamp per diem 4·6 tons, gold won from above 8544 ounces 6 dwts.

FORBES REEF.—The mine manager reports progress for the month of January, under letter dated February 2, as follows:—No. 1 mill. Tons milled, 1576; stamps working, 20; number of days mill ran, 25 days 5 hours; smelted gold won, 32 ounces.—Avalanche mill. Tons milled, 2372; stamps working, 20; number of days mill ran, 27 days; smelted gold won, 84 ounces 4 dwts. 7 grains.—Electric-power plant. The two dynamos have been erected, also motor at Avalanche. Holes have been sunk and poles cut and carted for the transmission wires. Timber for building requirements has been cut and carted, and fair progress made with the buildings to house this plant. I hope to have the erection of this plant completed, and ready for work by the 1st of March next.—Machinery. All machinery has been kept in repair and good working order.—Red Reef. Preparations to erect the Huntingdon mill are being made.

SILATI.—According to latest advices from the mine, the manager reports as follows:—Laing's reef at the 180 feet level is in a big body of lode, and at present assays over 15 dwts. The deep prospecting winze is now down 40 feet below the 180 feet level, the lead is cutting in north, and we are sinking on the footwall. The lead is there right enough, and strong and hard, but I do not care to check the work until the end of the month, when I hope we shall be down 70 feet. The first crushing of some 450 tons of ore from the Murchison Crown Reef produced an average of 17 dwts. per ton.

FORTHCOMING MEETINGS.

**** We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.*

Name of Company.	Date.	Time.	Place.
New Tamarugal Nitrate	March 4	12 noon.	Winchester Ho.
Lisbon-Berlyn	March 4	2.0 p.m.	Cannon Street
Marbella Iron Ore	March 5	2.0 p.m.	78, Qn. Vic. St.
Spitzkop Farm Gold	March 5	2.0 p.m.	Winchester Ho.
Bell's Asbestos	March 7	2.30 p.m.	Cannon Street
Victoria (London) Mining Company	March 8	1.30 p.m.	7, Moorgate St

FIFE COAL.—The Fifeshire coalmasters are moving for a reduction of 6d. per day in miners' wages. A conference between the parties has been called for to-day (Saturday).

AUSTIN GOLD.—In a telegram received from the manager dated January 10th, addressed to the local board, he reports as follows:—Golden Gate. Water shaft 40 feet level, lode 3 feet wide, gold showing face north and south, ore should yield from 2 ounces ton. Some of ore very rich. Commenced main shaft Golden Gate.—Evening Star. No. 1 south shaft underlay 30 feet, reef 3 feet wide, average 1 ounce 5 dwts. Drive from No. 1 south crosscut put in 20 feet. Struck reef 3 feet wide, 1½ ounce. Some prospects rich, average 2 ounces.—No. 2 crosscut. 25 feet north No. 1 3 feet wide; dollying stone met with, prospects 1½ ounce. No. 3 crosscut east 2 feet 6 inches wide; prospects poorer than No. 2, but payable. No. 4 crosscut 30 feet north struck reef 3 feet wide; gold showing in the face freely.—Central Shaft. Struck reef 45 feet 2 feet 6 inches wide, rich stone from bottom of shaft. Drive north on reef gold showing in places.—North Shaft. Struck reef 65 feet, vertical 3 feet wide, payable ore. Average stone is good. There is concrete formation similar to Golden Gate, carrying gold; thousands of tons; can be won quickly and cheaply.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended January 17: Block 96. 280 level east prospecting drive, No. 4 rise. Stopes driven 32 feet. Stoping continued. No improvement showing in the north east. Stopes men have been transferred to No. 6 rise. The lode in the eastern face is looking more promising. The country is very hard, and the mundic showing very strong. The south stope has been carried down about 9 feet, and the lode not looking sufficiently good enough, work here has been suspended for the present, and men transferred to western stopes. No. 6 rise driven 7 feet, total 26 feet 6 inches. The lode here small, the mundic vein very strong, accompanied with a small vein of iron. No. 5 level east of incline driven 11 feet, total 63 feet. The lode is getting more defined, consisting of carbonate of iron and calcite, the country being very hard. No. 1 rise off No. 4 level east off incline stopes driven 12 feet. No change; still yielding a little galena and fahlerz.—Note. The quantity of rock mined during the fortnight was 2305 cubic feet.

BALAGHAT-MYSORE.—Joseph Pryor, February 6: Ogle's shaft. The water at this part of the mine is still being kept at the 410 feet level. The eastern lode recently intersected at the 440 feet level at the adjoining south, or Coromandel Mine, having continued in their nortnern level to open up so satisfactorily, we have decided to put out a crosscut east of the 270 feet level south of Ogle's shaft, to test its value in our property, as from its eastern position at Coromandel, it is supposed this lode is also standing intact in our mine. We are now engaged clearing and securing the 270 feet level (it having become blocked at places through falls of ground); we, however, expect to be able to start the crosscut on or before the end of next week.—Tennant's shaft. I am pleased to say we have completed cutting the necessary ground for tip-plat, travelling road, &c., at the 500 feet level, and have again resumed the sinking of the shaft, and the cutting of the ground for tip-plat, and have deepened it 4 feet 3 inches, or 5 feet 3 inches below the level. The ground in the shaft is at present unproductive. We have also commenced driving a crosscut east to prove the ground in this direction, and extended it 17 feet from the shaft. The 500 feet level north has been advanced 9 feet 9 inches, or 29 feet 6 inches from shaft. The part now being driven on is at present unproductive, but from the appearance of the ground, I am hoping we shall ere long meet with an improvement. The 420 feet level north has been driven 14 feet 3 inches, or 215 feet from the shaft. This end is still in dyke. The No. 1 winze in the bottom of this level has been sunk 6 feet 3 inches, or 58 feet 9 inches below the level. The lode is about 3 feet wide, but the leader of quartz has recently become smaller, and is now only about 2 inches wide. It, however, assays 4 dwts. per ton. The crosscut west (referred to in my last report) has been driven 9 feet, or 13 feet 6 inches from the level, and then suspended, as we did not intersect anything of particular value. The 420 feet level south has been extended 15 feet 6 inches, or 115 feet 3 inches from the shaft. The lode continues to occasionally yield small patches of quartz, but as yet they have not been of sufficient regularity to value. The mid (or 385 feet) level north has been driven 12 feet 9 inches, or 136 feet 9 inches from the shaft. The quartz for this distance has been about 2 feet wide, and assays 3 dwts. 15 grains per ton, but within the last blast or so the quartz has become much smaller, and is now from 6 inches to 1 foot wide. I, however, think it will soon increase in size again. The stopes in the bottom of this level yield quartz of from 12 inches to 3 feet wide, but the average assay value is only 4 dwts. 3 grains per ton. The lode in the level south of the winze not having improved, its further driving has been suspended. The 350 feet level north has been advanced 18 feet 9 inches, or 289 feet 9 inches from the shaft. I am pleased to say a decided improvement has recently taken place in the character of the ground passed through, and whilst its present assay value is only 2 dwts. 7 grains per ton, I am hoping it will very soon further improve, and that we shall ere long meet with a productive lode. The stopes in the bottom of this level yield quartz of from 12 inches to 1 foot 6 inches, but assay on an average only 3 dwts. 10 grains per ton. The stopes in the bottom of the 350 feet level south yield quartz of from 2 to 3 feet wide, and assay 4 dwts. per ton.—Health. Beyond a few occasional cases of fever, the health of the camp is, at present, very good.

BONNIE DUNDEE.—January 5. I cabled you on 3rd instant that we had cut a reef 2 feet thick, which I estimated is worth 2 ounces per ton. We have since cleaned off the reef, and have raised about 12 tons from the bottom of the shaft. In appearance the stone is equal to anything I have seen on the field. The reef averages about 2 feet, and runs very evenly across the shaft; it is dipping to the north-east at an angle of about 20. I think there is no doubt that this is the Victory reef, the stone being of the same appearance as the best stone obtained in the New Queen Mine. Mr. Henderson, the manager of the New Queen Mine, who examined the stone, considers it should go from 2 to 3 ounces per ton, judging from appearances. In prospecting the stone, it shows a little gold, but I have not obtained any rich prospects. It contains nearly 50 per cent. of mineral. I had one assay of the mineral made, which gave 2 ounces 15 dwts. 12 grains of fine gold per ton, and 1 ounce 15 dwts. 23 grains of silver; this would be equal to about 3 ounces 8 dwts. of ordinary gold. I think there is no doubt that the stone is of payable quality. I propose crushing the 12 tons in a day or two, and will cable you the result at once. The depth at which the reef was cut was 1090 feet; this is considerably deeper than the original estimated depth, which shows that the inclination of the reef is steeper than was calculated. It will be necessary to sink some distance for a well hole before the opening up, and I would advise that we should go on sinking for at least 50 feet, when we shall be well clear of the opening out work on this reef, and able to continue the sinking of the straight shaft at the same time we are working on the lode. We are certain to cut other formations and reefs by sinking deeper. The strike of this reef has considerably affected the price of shares in all the adjoining mines, and all who have seen it consider the find an excellent one, which I trust will be proved to be the case by future working.—(Signed) E. H. T. Plant, Managing Director. (Result of crushing of 12 tons, referred to in above letter, as per copy of cablegram, dated 10th January, 1895:—"The trial crushing of 12 tons has yielded 27 ounces of gold.")

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the ending January 16: Blackwood (No. 1 shaft, 150 feet level, main north drive extended 20 feet, total length 120 feet, face looking better, carrying small patches of lead ore. West crosscut started off south drive (immediately opposite east crosscut, driven 22 feet, and stopped as face was in mullock. Have resumed work in main south drive again to-day.—Howell (No. 2) shaft, 300 feet level, west crosscut off north-east drive driven 10 feet, making total length 18 feet, and connection made with winze from far north stopes. This connection gives splendid ventilation throughout these workings now. 100 feet level. Have driven a north-westerly drive 18 feet, and risen 7 feet for connection, thereby giving dumping room for filling in this portion of far north stopes.—Marsh (No. 6) shaft. 2nd level, No. 3 east crosscut was lengthened 15 feet, making its total length 202 feet, at which point work has been stopped. Uprise in end of south drive continues to yield fair grade carbonate ore. We broke 2 tons, assaying 21 per cent. lead and 63 ounces silver per ton, and 6 tons 29 per cent. lead and 36 ounces silver per ton. Stope over back of main south drive looks patchy at present. We mined 3 tons, assaying 20 per cent. and 60 ounces, 4 tons 24 per cent. and 34 ounces, and 3 tons 21 per cent. and 18 ounces silver per ton. Stopes down winze are maintaining their usual output of good grade carbonate ore. We broke 43 tons, averaging 21 per cent. lead and 63 ounces, 18 tons 21 per cent. and 26 ounces, and 26 tons 20 tons 20 per cent. and 18 ounces silver per ton.—Retallick's two kings. Only a small quantity of carbonate ore has been broken here during the week as men have been cleaning down mullock for filling in winze stopes. The assays for the week vary from 10 per cent. to 48·5 per cent. lead, and from 10·1 ounces to 95·7 ounces silver per ton.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, January 3: During the past fortnight we have been opening out at the bottom of the winze from No. 9 level, and the reef is about 10 inches thick. We will be ready in a day or two to build the hopper. The reef in the underhand stope is about 9 inches thick, and in the three stopes over No. 9 level the reef is about 8 inches. The drive on the fault in No. 8 level has been extended a further 11 feet, making a total of 104 feet from starting point. The haulage of quartz from this shaft is 16 tons, making a total of 142 tons in the paddock. During the Christmas holidays we repaired the straight shaft, and overhauled the engine. At the Victoria and Queen shaft the eastern level on the Victoria and Queen reef has been extended a further 4 feet, making a total of 80 feet from boundary peg, and there are about 8 inches of reef in the present face; and the four stopes over this level average about 10 inches of pretty fair quality. We have raised 26 tons of quartz, making a total of 175 tons in the paddock—or a total of 317 tons on the surface, and crushing will be commenced next week.—(Signed) G. Catassi.

HARMONY GOLD AND LAND.—The following is an extract from the *Zoutpansberg Review* of the 21st ult., the original of which may be seen at the offices of the company:—"The property of the company consists of the mineral rights of the 11 northern farms, known as the Harmony Block, comprising an area of 120 square miles. The block is so situated that every reef in the northern range of the Murchison comes on to this ground, and must for a distance of nine miles or more cross it. The block also touches the farm Potsdam, on which is the Sutherland Reef Company's property, and is magnificently watered, two main sources of supply being the Ngobitsi and Salati rivers, which can furnish water for thousands of stamps. The farm Munchen, one of the farms adjoining the Sutherland, is now in hand, and 60 men engaged in trenching and otherwise locating the extension of the Sutherland Reef, with every prospect of success. As soon as the season permits the Harmony Gold and Land Company will actively prospect and open up other belts of reefs known to exist on their farm. Mr. Procter, before returning to England, will appoint a manager over their estates in the low country. The other property of the company consists of 11 farms in Waterburg and Zoutpansberg, four being near here and one adjoining Pietersburg, named Sterkloop. A separate manager will be appointed to deal with these properties, and the one adjoining the town will be taken in hand at once, and the water put into shape, erven laid out, and a general development taken in hand. Mr. Procter is convinced that at no distant date the Murchison will be appreciated much more than it is now. Of its richness as a gold field there is no doubt. The unhealthiness of the district has been immensely exaggerated, and he is perfectly certain that low grade ore can be mined and milled at less cost than on the Rand. Within a measurable distance the Murchison range will be in communication by rail with Delagoa Bay, and it requires no mathematician to demonstrate the cost of machinery and other requisites as compared with Johannesburg. Mr. Procter leaves here to-morrow morning for the low country, and will remain until he has installed his new manager on the Harmony Block, and seen the first crushing on the Sutherland Reefs, which we expect to eclipse anything yet recorded in Zoutpansberg."

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated January 18: Mons Meg Mine. Crosscut west of drive south of winze on main shoot 100 feet below tunnel D, advanced 8 feet, total 8 feet. Passed through veins of slightly auriferous quartz. We are now cutting a chamber for tank at this level in order to resume sinking main winze as soon as possible.—Stopes. Lode in stope at level of tunnel D 12 feet wide, and showing colours of free gold. It is generally of low grade. Lode in stope at back of 240 feet level below J from 2 to 4 feet wide, and of fair quality. The underhand stope at back of 44 feet level is now exhausted, and we are cleaning down the walls preparatory to filling in.—St. Bernard Mine. Drive north of crosscut from lower tunnel on United Miners lode advanced 13 feet, total 32 feet. Lode continues small and poor. Influx of water unusually heavy. Crosscut from upper tunnel driven 32 feet. We are now stoping out the vein of auriferous quartz which is about 1 foot wide, and valued at 2 ounces per ton.—Returns. We cleaned up on the 9th inst. for the following returns, viz.:—Mons Meg Mine 303 tons, yielding 87 ounces 4 dwts. of gold.—Privies works, 12 tons for 21 ounces 14 dwts. Total for 4 weeks, 108 ounces 18 dwts. melted gold.

HARQUAHALA.—Copy of Mr. Robert M. Raymond's report for the month of January:—Mining department. Bonanza group. Ore breaking. Discovery vein, stope No. 2, above 6th level. This ore body has supplied 1400 tons during the month, and the pay ore is now worked out. This has proved a contact body, similar to the porphyry stope. The ore has come largely from over and under the rich streak previously worked, and from its extension laterally east and west. The ore has varied in value from $5 to $8.—Discovery vein, big stope. A quantity of the broken ore has been drawn from this, but its value has become very uncertain. Some low-grade rock ran into it, which is now shut off. There is only a small quantity of this remaining.—Discovery vein, 4th level, South end. A small corner of ground under a big stope has yielded 150 tons of low grade ore. The latest developments have struck some bunches of better grade, and a small quantity of fair grade ore will be obtained adjoining the old stope.—Doherty vein, 4th level. 200 tons have been broken from this, low grade, but a small quantity of the good ore remains, which we are now getting at.—Iron vein above 1st level. 300 tons have been mined from this stope of varying grade, and ore is still being found in the bottom.—Iron vein, 4th and 5th levels. About 400 tons have been taken from sundry points in the south end. The block of ground between the 4th and 5th levels at the extreme south end is now being stoped. The vein is from 12 to 18 inches wide, averaging $4 to $5.—Iron vein, 6th level. Operations have been resumed on the underhand stope here, and some new ground has been opened into, which is yielding well.—Prospecting department. Iron vein south, 1st level. The winze has been sunk to a depth of 60 feet, most of the way in ore, the vein being 12 to 15 inches wide. The last 15 feet are in barren ground, the vein having fouled or twisted, and consequently pinched at that part. A crosscut east has been started near the south end of this level to under-cut the old stopes, where considerable good ore remains pillars, which will be taken out.—Iron vein, above 1st level east. A drift east from the old stopes has been driven 25 feet along the vein, where the ore is 18 to 24 inches in width, of good grade.—4th level, crosscut east. A crosscut under the Discovery vein has been driven 28 feet east to explore the ground adjacent to this ore body. Narrow streaks are found, but of no extent as yet.—Iron vein, 4th level south. This drift has been advanced 40 feet further, but most of the way in barren ground, the vein being pinched and of no value.—Iron vein, 5th level. This has been continued 50 feet further, in ore for 30 feet, but beyond that the vein pinched and is of little value.—Iron vein east. The drift from No. 3 crosscut, 5th level, has been advanced 60 feet, but with no improvement in indications. Work at this point has been suspended.—Contact vein east. No. 1 crosscut, 5th level, has been advanced 89 feet, making a total of 149 feet. In the ground near the heading good indications of an ore body near at hand occur. A raise is being made to investigate the most likely ground, and a little gold has been found.—Contact vein west. The drift at the head of the porphyry stope has been advanced 68 feet, a total of 93 feet. Near the heading a body of rich ore has been struck, which looks hopeful as to extent. The ore as far as developed averages $15. The drift at the middle of the porphyry stope has been advanced 35 feet west, but with no ore. The drift at the lower end of the porphyry stope, over No. 4 crosscut, 6th level, has been advanced 63 feet, making a total of 85 feet. The rock has shown a great improvement in the heading, shows some gold, and is favourable for ore.—Contact vein south. No. 3 crosscut, 5th level, has been advanced 21 feet. This starts into a slight raise in the porphyry, which gives evidence of being of short duration, and beyond which the contact may proved productive, in a country as yet unexplored, and very hopeful.—Contact vein, 3rd level. Near working shaft. A raise has been made at this point along the contact, and about 2 feet of ore has been encountered, averaging $6 to $8.—Golden Eagle Group. The south drift was advanced 10 feet, a total of 303 feet. Work has ceased here. The north drift has been advanced 39 feet, a total of 100 feet. The heading shows fair indications. No. 1 winze has been sunk 38 feet, a total of 105 feet. Near the bottom a small bunch of good ore has been struck. No. 2 winze has been sunk 36 feet, a total depth of 113 feet. No pay ore has been found during the month. Sinking has been suspended at this point, and stoping begun at a depth of 65 feet from the tunnel level.—General remarks. Development work has been pushed as rapidly as possible during the month, but with little encouragement until the last of the month, when several spots have been opened showing good ore. Investigations in the upper workings of the iron vein show considerable good ore in the pillars, which have been left quite thick. This ground will be timbered, and will furnish a supply of good ore for some time. Milling department. The mill has run steadily during the month, the total service being 29 days. The ore handled and the returns have been as follows:—On hand, January 1, 344 tons; mined and hoisted—Golden Eagle, 21 tons; mined and hoisted—Bonanza, 2907 tons; total, 3272 tons; milled during the month, 2790 tons; on hand, February 1, 482 tons; bullion produced, 996·9 ounces, valued at $15,780; profits, general store, $500; total, $16,280; expenses on account, £15,400; net profit (or, at $4·90 to £ sterling, equals $880. Though the profits have been very small for the month, development work has been increased, and the outlook for good returns for February is encouraging.

LADY MARY AMALGAMATED.—The first letter from Mr. W. B. P. Fell (the company's managing director in Western Australia) since his arrival at the mines has been received, and the following is an extract from it: "I received a very welcome bit of news on arrival—that in south shaft on the Rising Sun a large body of good stone had been met with at a vertical depth of 135 feet, showing very nice gold."

MYSORE REEFS (Kangundy).—Fortnightly report of Captain M. Scantlebury, dated February 6: Underlie shaft. The 325 feet level north has been extended 4 feet 3 inches, now 110 feet 6 inches from shaft. The lode for the present is pinched. I have suspended the driving until we stope a little in the bottom of level to make place for the poor debris, instead of hauling it to surface. Winze below 325 feet level north has been deepened 8 feet 6 inches, now 33 feet below the level. The quartz is 18 inches wide, assaying 1½ ounces of gold to the ton.—Stope in bottom of 325 feet level north. The quartz is 15 inches wide, assaying 2 ounces of gold to the ton. Rise No. 2, above 325 feet level north has been put up 10 feet 6 inches, now 18 feet above the level. The quartz is 1 foot 9 inches wide, assaying 8 dwts. of gold to the ton. Winze below the 250 feet level has been sunk 4 feet 9 inches, now 24 feet below the level. The quartz is 18 inches wide, assaying 6 dwts. of gold to the ton. We have commenced to sink the shaft by hand labour.—Vertical shaft. The 260 feet level north of crosscut has been advanced 18 feet, now 31 feet 6 inches from crosscut. The lode is beginning to open out. We have now quartz for a width of 15 inches, assaying 3 dwts. 6 grains of gold to the ton. In a few feet more driving the lode will improve. Winze below the 200 feet level north of crosscut has been sunk 7 feet 6 inches, now 19 feet below the level. The quartz is 1 foot 9 inches wide, assaying 4 dwts. of gold to the ton. Winze below 200 feet level south of crosscut has been sunk 4 feet, now 33 feet below the level. The quartz is 15 inches wide, assaying 15 dwts. of gold to the ton.

NINE REEFS.—Fortnightly report of Captain John Woolcock, dated February 6: Vyvyan's shaft, 220 feet level. The lode in the stope working in bottom of this level to the north of winze is from 2½ to 3 feet wide, carrying quartz from 6 to 8 inches, and this by assay is worth 1 ounce 7 dwts. 4 grains of gold per ton. Ground stoped for January 9 fathoms 1 foot 5 inches. In the stope working in the bottom of the level to the south of winze, the lode between the walls is from 3 to 3½ feet wide, and the quartz leader varies in width from 8 inches to 1 foot. The assay value of this is 12 dwts. 8 grains of gold per ton. The ground stoped last month 5 fathoms 2 feet 6 inches. In the No. 4 stope working in the back of this level to the south of shaft, and north from footway winze, the quartz portion of the lode varies from 10 inches to 1 foot wide, but this at present is of low quality; an average sample assayed yesterday gave 10 dwts. 6 grains of gold per ton. I am expecting that this stope will soon improve. Ground stoped 7 fathoms 1 foot 2 inches.—145 feet level south of shaft. The rise in back of this level 190 feet from shaft has been put up 8 feet 1 inch, total height from back of old stope 15 feet 8 inches. The lode is 2½ feet wide, carrying quartz from 6 to 8 inches, and this by assay is worth 1 ounce 4 dwts. 2 grains of gold per ton. In the stope working to the north of rise the quartz is 1 foot wide and worth by assay 18 dwts. 12 grains of gold per ton. This stope is very near the north end of the shoot, and in a few days the men will be put to take another stope off from the end of the rise. The ground stoped last month was 5 fathoms 2 feet 3 inches. In the stope working to the south of rise the lode continues about 2½ feet wide, carrying quartz varying from 6 to 8 inches wide, and this by assay is worth 2 ounces 5 dwts. 9 grains of gold per ton. Ground stoped, 7 fathoms 4 feet 6 inches.—South shaft. This shaft has been further deepened 5 feet 3 inches, making a total depth from surface of 210 feet 6 inches, and below the 145 feet level 65 feet 6 inches, which is the required depth for our second level. The men have been engaged the last two days blasting out the side preparatory to driving the 210 feet level, which will be commenced to-morrow. There is no material change in the character or the value of the lode since my report of the 23rd ultimo. After driving a short distance we shall blast out the hanging-wall part, which I trust will prove to be more productive. An average sample from the footwall part gave by assay 4 dwts. 6 grains of gold per ton. The ground is harder, and the lode at present is rather disordered, but I hope that this is only temporary.—145 feet level north. The winze sinking in the bottom of this level at 100 feet from shaft has been sunk 5 feet 6 inches, making a total depth below the level of 20 feet 6 inches. The sinking is being retarded on account of the water, which I hope will soon be drained by the 210 north level. We are carrying 3½ feet of the lode, and this by assay is worth 2 dwts. 10 grains of gold per ton, but I am hoping that we shall soon be able to report an improvement here.—Prospecting. No. 1 shaft, McTaggart's lode. The 100 feet level north has been further extended 6 feet 10 inches, making a total of 55 feet. The lode at present is rather pinched, being only 1 foot wide, composed of soft schist and a little quartz, the whole of which is highly stained with oxide of iron, and worth by assay 1 dwt. 10 grains of gold. The crosscut west to the south of shaft has been advanced 7 feet 5 inches, total distance from shaft 34 feet 3 inches. In the last 3 feet we have met with a little water, which may be looked upon as a favourable indication, and I purpose driving a little further. There has been very little work done at the No. 5 shaft during the past fortnight. The last party of coolies were a very lazy, careless lot, and only did work enough to pay their cost, and I took the contract from them. It was reset to another party on Monday, but I am of an opinion that the men now working are not much better than the last.—Surface. Our surface operations are going on with regularity, and do not call for comment. The machinery throughout the mine and pitwork is kept in good order, and working well.—Mill. We milled last month 260 tons of rock, of which 80 tons was quartz, yielding 147 ounces of gold.—Health. I am pleased to say that the general health of the camp continues good.

BRILLIANT BLOCK.—Mine manager's report for fortnight ending 9th January: Underlie shaft sunk 5 feet, or 116 feet below No. 6 plat. Reef 4 feet, 17 to 20 dwts. We are ready to open out and drive level No. 7 east and west. No. 6 level west driven 10 feet. Length 4 feet. Reef in face 1 foot, ½ ounce. In two stopes over 2 to 5 feet, of 8 to 10 dwts. No. 6 level east driven 10 feet. Length 254 feet. Reef 2½ feet, 16 to 18 dwts. Stope over 1 to 3 feet of 17 dwt. stone. No. 5 level west driven 11 feet. Length 418 feet. Reef 2½ feet, 15 dwts.—No. 5 level east. Two stopes H. W. reef 1 foot, 25 dwts. Seven stopes F. W. reef 1 to 3 feet, 10 to 15 dwts.—No. 4 level east. Two stopes H. W. reef 18 inches, 18 dwts. Two stopes F. W. reef 2 feet, 10 to 12 dwts.—Overhaul. Air compressor and boiler overhauled and cleaned.—Crushing, 68½ tons, 577 ounces 16 dwts. Rainbow mill not cleaned up, owing to holidays.

MYSORE GOLD.—R. Hancock, February 6: Mining operations for the fortnight ending February 4: Rowse's shaft, 1460 feet level north of winze. This end has been driven 15 feet, making a total distance driven of 115 feet. The lode is 3 feet wide, assaying 7 dwts 19 grains.—1460 feet level south of winze. This end has been driven 24 feet 6 inches, making a total distance driven of 184 feet. The lode is 3 feet wide, assaying 5 dwts. 5 grains.—1360 feet level south of crosscut. This end has been driven 16 feet, making a total distance driven of 193 feet 4 inches. The lode is 1 foot wide, assaying 10 dwts. The lode in the stope in the back of this level is 3 feet wide, no assay made.—1360 feet level north of crosscut. There are three stopes in the back of this level, the average width of the lode being 2 feet 4 inches, giving an average assay of 2 dwts. 14 grains. —1360 feet level north of winze. The lode in the stope in the back of this level is 3 feet wide, assaying 7 dwts. 19 grains.—1260 feet level north. There are four stopes in the back of this level, the average width of the lode being 4 feet 10 inches, giving an average assay of 1 ounce 9 dwts. 3 grains.—1260 feet level south. The rise in the back of this level has been put up 15 feet, making a total height of 76 feet 6 inches. The lode is 3 feet wide, assaying 13 dwts. 1 grain. There are two stopes in the back of this level, the average width of the lode being 5 feet, giving an average assay of 1 ounce 12 dwts. 15 grains. There are six stopes in the 1160 feet level north, the average width of lode being 1 foot 9 inches, giving an average assay of 1 ounce 5 dwts.—1160 feet level south. This has been driven 29 feet 6 inches, making a total distance driven of 313 feet 6 inches. The lode is 2 feet wide, assaying 19 dwts. 14 grains. We have started a crosscut east in this level 35 feet south of the shaft, which has been driven 15 feet. The lode in the stope in the bottom of this level is 2 feet 6 inches wide, assaying 1 ounce 13 dwts.—1060 feet level north east. This end has been driven 16 feet 6 inches, making a total distance driven of 588 feet.—990 feet level north We have a pare of men engaged stripping down side in the back of this level, in which the lode is 1 foot wide, assaying 19 dwts. 14 grains.—890 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 1 ounce 4 dwts. 19 grains.—890 feet level north of crosscut. This end has been driven 18 feet 6 inches, making a total distance driven of 193 feet 6 inches. There is nothing here to report. We have started a rise in the back of this level 110 feet north of the crosscut, which has been put up 8 feet. The lode is 6 feet wide, assaying 2 ounces 3 dwts. 6 grains.—890 feet level south. This level has been driven 18 feet 9 inches, making a total distance driven of 204 feet 6 inches.—780 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 0 dwts. 21 grains.—780 feet level north on new chute. This level has been driven 19 feet 6 inches, making a total distance driven of 292 feet 6 inches. The lode is 5 feet wide, assaying 2 ounces. The rise in the back of this level has been put up 11 feet, making a total height of 30 feet. The lode is 5 feet wide, assaying 1 ounce 2 dwts. 4 grains. The lode in the stope in the back of this level is 2 feet wide, assaying 7 dwts. 3 grains.—620 feet level north of crosscut. This end has been driven 5 feet 6 inches, making a total distance driven of 308 feet 6 inches. There is nothing here to report. The crosscut east has been driven 20 feet, making a total distance of 138 feet. We have intersected quartz which is 1 foot wide, assaying 16 dwts. 23 grains. There are three stopes in the back of this level, the average width of the lode being 3 feet 10 inches, giving an average assay of 5 dwts. 15 grains.—620 feet level south of crosscut. The lode in the stope in the back of this level is 2 feet wide, assaying 5 dwts. 5 grains.—Crocker's shaft. This shaft has been sunk 19 feet 6 inches, making a total depth of 64 feet 6 inches below the 620 feet level; there is nothing here to report.—466 feet level north. There are two stopes in the back of this level, the average width of the lode being 5 feet, giving an average assay of 1 dwt. 22 grains.—400 feet level north. There are four stopes in the back of this level, the average width of the lode being 3 feet 1 inch, giving an average assay of 16 dwts. 11 grains.—296 feet level north. There are three stopes in the back of this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 1 ounce 6 dwts. 9 grains. — 236 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 1 ounce 13 dwts. 16 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 19 dwts. 14 grains.—Gilbert's shaft, 520 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 3 dwts. 6 grains.—520 feet level south. The lode in the stope in the back of this level is 2 feet wide, assaying 6 dwts. 12 grains.—430 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 18 dwts. 6 grains.—360 feet level north. The lode in the stope in the bottom of this level is 1 foot 6 inches wide, assaying 1 ounce 5 dwts. 4 grains.—290 feet level north. There are two stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 8 dwts. 11 grains.—180 feet level south. There are three stopes in the back of this level, the average width of the lode being 3 feet 2 inches, giving an average assay of 1 ounce 18 dwts. 3 grains.—Tennant's shaft. This shaft has been sunk 12 feet 6 inches, making a total depth of 112 feet 8 inches below the 600 feet level.—520 feet level north. There are two stopes in the bottom of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 13 dwts. 8 grains.—290 feet level south. We have a pare of men engaged blasting out a piece of quartz in the eastern side of this level, in which the lode is 9 inches wide, assaying 13 dwts. 1 grain.—290 feet level south, north of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce 9 dwts. 6 grains.—Schaw's shaft, 450 feet level north of the crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot 2 inches, giving an average assay of 17 dwts. 14 grains.—450 feet level north south of crosscut. The winze in the bottom of this level has been sunk 2 feet, making a total depth of 143 feet 6 inches, and suspended.—Driving north on the eastern part of the lode, This end has been driven 4 feet 6 inches, making a total distance driven of 10 feet 3 inches. The lode is 1 foot wide, assaying 3 dwts. 22 grains. There are three stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 5 dwts. 21 grains.—McTaggart's shaft. This shaft has been sunk 1 foot, making a total depth of 51 feet 6 inches below the 550 feet level. These men have also been engaged cutting a plat at the 550. The crosscut west from the shaft at the 550 has been driven 10 feet 6 inches, making a total distance driven of 44 feet 3 inches.—550 feet level north, This level has been driven 6 feet 8 inches, making a total distance driven of 25 feet 8 inches. —450 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 5 dwts. 5 grains.—320 north. The lode in the stope in the back of this level is 1 foot wide, assaying 5 dwts. 5 grains.—320 feet level south. The lode in the stope in the back of this level is 1 foot wide, assaying 7 dwts. 19 grains.—Glen shaft, 250 feet level north, crosscut west. This has been suspended, and the machine put to drive the crosscut east.—Crosscut east. This has been driven 13 feet, making a total distance driven of 302 feet 6 inches. The men that were driving this crosscut has been put to drive a crosscut east 22 feet north of the shaft; driven 3 feet.—Ribbiesdale's shaft. This shaft has been sunk 7 feet, making a total depth of 519 feet.—1060 rise. This has been put up 6 feet, making a total height of 90 feet.—Williams's shaft, crosscut east from the 173. This has been driven 4 feet 6 inches, making a total distance driven of 105 feet, Health good.

MOUNT LYELL.—The London board have received the following report from the Melbourne board, viz., for the week ending Jan. 9: Indicator winze, No. 3 tunnel. This winze has been sunk 5 feet, total 55 feet. The sinking is in fair grade copper pyrites. The micaceous clay seam is still showing, but is very small.—North drive, No. 3 tunnel. A drive has been started north along the foot-wall of the pyrites (where they are intersected by the tunnel, or 138 feet from the mouth) and has been driven 10 feet. The country driven through is barytes rock, carrying a little silver.—No. 2 shaft, No. 4 tunnel. The cutting out of the chamber for the engine and poppit legs is being pushed ahead as fast as possible, and I expect to be able to fix the latter during the coming week, No. 1 rise south drive 50 feet level, engine shaft, No. 4 tunnel. The contractors have commenced work and have put up the rise 3 feet. Country schist rock, with hard bar of quartzite lying next to the pyrites.—No. 1 winze, No. 2 crosscut, 75 feet level, engine shaft, No. 4 tunnel. Underhand stoping has been continued. The rich vein of ore is very pinched at present.—North drive, 100 feet level, engine shaft, No. 4 tunnel. The north drive has been advanced 5 feet, total 80 feet. The drive is in pyrites of normal value.—No. 5 tunnel. The contractors have driven 6 feet, total 945 feet, The country is conglomerate, which bores and shoots fairly well.

MYSORE-WYNAAD CONSOLIDATED AND MYSORE WEST. —Tank Block. The mining manager (Mr. P. Bosworth-Smith) reports by mail for the month of January as follows:—South Shaft. This was continued down to 471 feet 9 inches, and was stopped on the 8th inst to put in plat, progress for eight days 7 feet. On the 21st inst. we commenced crosscut to lode, which, if continuing down with same inclination, should be cut at 24 feet from shaft. The crosscut is in 13 feet 6 inches, progress for the 10 days 13 feet 6 inches. Water is commencing to come in from the west, which is a good sign, as wherever Kennedy's shoot is big and rich it is in loose watery ground. In order to clear the the 400 level north we are putting in a tip plat below the present plat, this will be more expeditious than taking down the back of crosscut, which would necessitate another week's hauling deads. 354 north has been driven to 293 feet 9 inches, progress 9 feet, some quartz being discovered in the back of this level close to the winze. The coolies were taken back from the end to stope this. The quartz was 1 foot 6 inches wide, and worth 1 ounce 5 dwts., but the lode does not continue up into the back for any distance. 400 north has been driven to a distance of 231 feet 6 inches from the shaft; progress, 34 feet. The lode here has been very variable, averaging from 6 inches to 2 inches in width, the average of assays being about 1 ounce to the ton. This level, owing to crosscut from shaft having been cut too small, is blocked up with mixed deads and quartz. By putting in a tip-plat under present one, we hope to clear it soon, but the material will take a great amount of picking to render it fit for the mill. 400 south rise was stopped on the 10th inst., no quartz appearing. We came back and commenced stoping on the quartz close to shaft. The quartz does not continue up of any size, thus proving that the big shoot is below this level, and that the lode driven on here is probably the back of the main shoot. This speaks well for the prospects of the 450 south. —Mill. We commenced milling on the 21st, and ran off and on for 64 hours; but, owing to having to pick quartz from 400 north, we cannot yet run anything like continuously, but on cutting lode at 450 we shall do much better.

MILLS' DAY DAWN UNITED.—Mine manager's report for fortnight ending December 28.—No. 9 level east driven 5 feet, total 31 feet from plat. No. 9 level west driven 5 feet and timbered; length from plat 45 feet, formation 3 feet, with boulders of mineral stone. No. 8 level west, main reef. Stopped H. W. drive and commenced F. W. drive again; stopes over average 8 feet, good quality. F. W. reef 3 feet heavy mineral stone: H. W. stopes 3 to 6 feet, medium quality.—No. 8 level west. H. W. crosscut driven 6 feet on 2 feet medium quality stone; length, 75 feet. Stopes average 2 feet medium quality.—No. 6 level west, main reef. Stopes 3 feet heavy mineral stone.—No. 5 level west, main reef. 2 to 3 feet good stone.—No. 5 F. W. stope 2 feet 6 inches heavy mineral stone; length 400 feet. No. 5 level east No. 2, F. W. crosscut, 104 feet on portion of F. W. reef, no improvement. No. 4 east No. 3 F. W. crosscut 61 feet in length. Repairs to straight and underlie shafts, Shall recommence sinking underlie beginning of year.

NUNDYDROOG.—Thomas Richards, February 6: Report for the fortnight ending February 2: Taylor's shaft has been sunk 3 feet, total depth 7 feet below the 1160 feet level. Lode 15 inches wide, assaying 7 dwts. 12 grains. The 1160 south has been driven 9 feet 6 inches, total distance 39 feet 6 inches. Lode (quartz) 3 inches wide, assaying 3 dwts. 18 grains. The 1160 north has been driven 18 feet 6 inches, total distance 54 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 2 dwts. The 840 north from crosscut east has been driven 4 feet, total distance 10 feet. Lode 2 inches wide of no value. Suspended. In three stopes in the back of the 760 north the lode averages 3 feet 4 inches in width, and 1 ounce 5 dwts. 10 grains in assay value. The lode in the stope in the bottom of the 680 north is 18 inches wide, and assays 16 dwts. 6 grains. The 600 north has been driven 14 feet 6 inches, total distance 436 feet. Lode 6 inches wide of no value. In the stope in the back of this level the lode is 2 feet 6 inches wide and assays 10 dwts. In three stopes in the bottom of the 520 north the lode averages 1 foot 10 inches in width, and 14 dwts. 4 grains in assay value. In the stope below the 450 north the lode is 2 feet wide, and assays 10 dwts. The lode in the stope in the bottom of the 370 north is 2 feet 6 inches wide, and assays 11 dwts. 6 grains. The 300 north crosscut east has been extended 8 feet, and a few branches of quartz have been met with. Main shaft has been sunk 10 feet 3 inches, total depth 44 feet 9 inches below the 1000 feet level. Lode 6 inches wide, assaying 5 dwts. The 920 north crosscut eastward along the crosscourse has been extended 19 feet 6 inches, total distance 169 feet 6 inches. The footwall portion of the crosscourse, 18 inches wide, assays 4 dwts. 9 grains. This level has been driven south from the communication with the rise from the 1000 feet level, on the footwall part of the lode, 14 feet 6 inches. Lode 5 feet wide, assaying 2 ounces 12 dwts. 12 grains. The lode in the stope in the back of the 920 south is 5 feet wide, and assays 1 ounce 13 dwts. 18 grains. The 680 north has been driven 14 feet, total distance 381 feet. Lode 1 foot wide, of no value. Crosscut east from the 680 north has been extended 15 feet, total distance 260 feet. Some branches of quartz of no assay value have been intersected. The 520 feet level has been extended eastward on the crosscourse 25 feet, total distance 48 feet 6 inches. Kennedy's shaft has been sunk 2 feet, total depth 6 feet below the 600 feet level. The 600 crosscut west has been extended 8 feet 6 inches, total distance 24 feet. The 520 south has been driven 13 feet, total distance 392 feet 6 inches. Lode 1 foot wide, assaying 5 dwts. The 520 south rise has been put up 20 feet, total height 60 feet. Lode (part carried) 4 inches wide, assays 15 dwts. The 520 north has been driven 18 feet, total distance 405 feet. Lode 2 feet 6 inches wide, assaying 17 dwts. 12 grains. The 520 north rise has been put up 21 feet, total distance 77 feet, and communicated with the 440 feet level. At the point of communication the lode is 1 foot wide, and assays 1 ounce 17 dwts. 12 grains. North shaft has been sunk 1 foot 6 inches, total depth 6 feet 6 inches below the 520 feet level. Lode still standing in the hanging side. The 440 south has been driven 19 feet, total distance 754 feet 6 inches. Lode 1 foot wide, assaying 3 dwts. 18 grains. In the stope in the back of the 440 north the lode is 6 feet wide, and assays 1 ounce 2 dwts. 12 grains. The 370 south has been driven 14 feet, total distance 529 feet. Lode 1 foot 3 inches wide, assaying 1 ounce 12 dwts. 12 grains. The lode in the stope in the bottom of the 370 north is 6 feet wide, and assays 1 ounce 15 dwts. In two stopes in the back of this level the lode averages 4 feet 6 inches in width, and 1 ounce 11 dwts. 6 grains in assay value. Crosscut west from the 370 north has been extended 14 feet, total distance 238 feet. A small branch has recently been passed through of no assay value. The 300 south has been driven 17 feet, total distance 341 feet 6 inches. Lode 1 foot wide, assaying 1 ounce 11 dwts. 6 grains. In the stope in the back of this level the lode is 6 inches wide, and assays 1 ounce 17 dwts. 12 grains. The 300 north rise has been put up 11 feet 6 inches, and communicated with the 230 feet level north. At the point of communication the lode is 3 inches wide, and assays 1 ounce 10 dwts. The 230 north has been driven 17 feet, total distance 301 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 7 dwts. 12 grains. The 160 north has been driven 3 feet, total distance 145 feet. Lode 3 feet wide, assaying 10 dwts.—Old mill samples. Rough quartz through stone breaker, 1 ounce; smalls, 18 dwts. 18 grains.—New mill samples. Rough quartz, 1 ounce 10 dwts.; smalls, 1 ounce 3 dwts. 18 grains.

TOLIMA.—The directors have received advices by the mail of the 21st February, from their mines, of which the following is an abstract:—Frias estimated December returns (150 tons) silver, valued at 29d. per ounce, £6174 16s. 10d.; cost, £3073 8s. 6d.; profit, £3101 8s. 4d. The underground agent reports 113 fathoms 5 feet 3 inches of ground expended, of which 86 fathoms 1 foot 3 inches were productive, leaving of unproductive ground 27 fathoms 4 feet. The superintendent reports that the engine shaft has now attained a depth of 2 feet below the 140 fathom level, and is being sunk on a branch of the main lode to the north, which has been yielding some rich stones of mineral, and he adds, "our prospects appear very promising at this point." Meanwhile, the 140 fathom east winze, No. 1, has reached the 150 fathom level, having maintained during December an average yield of 2 tons per fathom of unusually high-grade mineral, an average sample of which assayed 980 ounces per ton. The 120 fathom east winze, No. 2, also made satisfactory progress during the month, yielding 2 tons of very high-grade mineral per fathom, a sample from which, taken at the end of December, assayed 1110 ounces per ton. Since that date the yield has fluctuated, rising at one time to 3 tons per fathom, and again declining. The superintendent, however, adds that he trusts the reduction in value will only prove temporary. This winze is now 6½ fathoms below the sole of the 120 fathom level.—The 130 fathom. Stopes are yielding well, and the superintendent expresses the hope of striking a productive branch of the main lode in the 130 fathom level, where he is driving a crosscut in the east end with that object. At Real de Frias the east end level is being driven to meet the Frias shallow adit with a rock-boring machine, and good progress is reported. The west end level, which is being driven at the same level but in the opposite direction, has much improved, the lode being better defined, and giving a mixture of ore stuff, which is expected to still further improve.—Underground report. Engine shaft was sunk 7 feet by six men on company account, and is down 2 feet below the sole of the 140 fathom level. Of late this has been sunk upon a branch of the main lode, the nature of which seems to improve as depth is attained, and same is now yielding some good portions of ore stuff. 140 fathom west end north branch was driven 10 feet by two men at $80 per fathom, and continues poor. 140 fathom east end was driven 14 feet by two men at $80 per fathom, thus being 215 feet as total east of the west winze. The lode remains poor. 140 fathom east end north branch was driven 12·9 feet by two men at $80 per fathom, and it yielded 5 ounces mineral per fathom. 140 fathom east winze No. 1 was sunk 14 feet by eight men at $150 per fathom, thus being 60·3 feet as total depth below the 140 fathom level, and yielded 2 tons of high grade mineral per fathom. A present this is suspended, and we are preparing a place in the roof of the 140 fathom level above the winze, in order to fix an air winch for the drawing of water and stuff from the above winze, the sinking of which will be resumed in the course of a few weeks. 130 fathom west end was driven 10·4 feet by two men at $65 per fathom, thus being 381·9 feet as total west of the west winze, and the lode is yet poor. 130 fathom west back stope No. 1 was stoped 46·1 feet by four men at $27 per fathom, and yielded 2 tons of mineral per fathom. 130 fathom west back stope No. 2 was stoped 40·4 feet by four men at $28 per fathom, and yielded 3 tons of mineral per fathom. 130 fathom east back stope No. 1 was stope 36 feet by four men at $35 per fathom, and yielded 1 ton of mineral per fathom. 130 fathom east back stope No. 1A was stoped 36·5 feet by four men at $30 per fathom., and yielded 3 tons of mineral per fathom. 130 fathom east crosscut north was driven 13·1 feet by two men at $97 per fathom. It is situated directly behind the 130 fathom east end upon the north branch, and our object in driving this is to search for more lode, which we consider is yet standing further north. 120 fathom west back stope No. 3 is situated from the west end of the 110 fathom west winze No. 1, and was stoped 21·2 feet by two men at $25 per fathom, and yielded 1 ton of mineral per fathom. 120 fathom east end was driven 25 feet by four men at $60 per fathom. The first 12 feet of this yielded at the rate of 1½ ton of mineral per fathom, but the remaining portion was poor. 120 fathom east winze No. 2 was sunk 25·5 feet by eight men at $87 per fathom, and it yielded 2 tons of high grade mineral per fathom. It is situated about 62 feet behind the above end, and our object in sinking it is to prove the extent of the mineral below the 120 fathom level. 120 fathom east back stope No. 1 was stoped 17·4 feet by two men at $35 per fathom, and it yielded 10 cwts. of mineral per fathom. 120 fathom east back stope No. 1A was stoped 9 feet by two men, and on company account, and yielded 4 tons of mineral per fathom. 110 fathom east end was driven 18 feet by two men at $60 per fathom, thus being 861·4 feet as total east of the engine shaft, and the lode remains poor. 110 fathom east bottom stope was stoped 39·6 feet by two men at $20 per fathom, and yielded 10 cwts. of mineral per fathom. 110 fathom west crosscut to north branch was driven 8·4 feet by four men at $125 per fathom. 110 fathom west back stope No. 1 was stoped 30 feet on company's account, and it yielded 5 tons of mineral per fathom. 100 fathom east bottom stope was stoped 9 feet by two men at $30 per fathom, and yielded 10 cwts. of mineral per fathom. 100 fathom east back stope No. 1 was stoped 38·2 feet by two men at $20 per fathom, and it yielded 10 cwts. of mineral per fathom. 100 fathom east back stope No. 1A was stoped 57 feet by two men, at $19 per fathom, and it yielded 1 ton of mineral per fathom. 100 fathom west back stope was stoped 38 feet by two men at $20 per fathom, and it yielded 2 tons of mineral per fathom. 90 fathom east end was driven 25·9 feet by two men, at $54 per fathom, thus being 1008·3 feet as total east of the engine shaft, and the lode remains poor. 90 fathom east end Welton's lode was driven 18·8 feet by two men, at $65 per fathom, and the lode remains poor, and, for the time being it is suspended. 80 fathom east stope was stoped 33·3 feet by two men, at $26 per fathom, and it yielded 2 tons of mineral per fathom. Shallow adit was driven 12 feet by four men, at $88 per fathom, thus being 195 feet as total west of the crosscut, and is unchanged. West end from new crosscut was driven 14·5 feet by men at $60 per fathom, and the lode is without change to note.—Real de Frias. West shaft was sunk 13 feet on company account, thus being 223·5 feet as total depth below the sole of the deep adit level. The lode has been somewhat disordered of late, and remains poor. For current month we are driving to meet the shallow adit from Frias Mine, the level being about 12 feet above the present bottom of the shaft.

YERRAKONDA.—Fortnightly report of Captain Scantlebury, dated February 6: Beresford's shaft. The 300 feet level north has been extended 17 feet 6 inches, now 39 feet 6 inches from shaft. The lode is 3 feet wide composed of quartz and arsenical pyrites, assaying 4 dwts. 12 grains of gold to the ton. 200 feet level north has been advanced 17 feet, now 316 feet from shaft. The lode is 2 feet wide showing good walls, but composed principally of mica and hornblende schist stained with iron. End head of rise 200 feet level south has been advanced 8 feet 6 inches, now 53 feet. This is communicated with the shaft. The quartz in the back is 18 inches wide, assaying 10 dwts. of gold to the ton. New engine shaft has been sunk 5 feet 6 inches, now 134 feet from surface. The rock is hard, and we have a deal of water to contend with, which is a hindrance to sinking. Trial shaft south has been sunk 11 feet 6 inches, now 40 feet from surface. The lode is 3 feet 6 inches composed of quartz, some of which shows visible gold. The average sample for the past week gave 8 dwts. of gold to the ton. I intend milling 20 tons of this quartz next week as a test.

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JOHN JONES, Secretary.

Cardiff, 27th February, 1895.

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THE SUTHERLAND GOLD FIELD.

AT a meeting of the Edinburgh Geological Society, recently held, Mr. HUGH MILLER, F.G.S., in the chair, a paper was read on "The Sutherland Gold Field,' by Mr. EDWARD GREENLY, F.G.S., of H. M. Government Survey.

A *résumé* was first given of the principal facts known up to the time when the Geological Survey began work in the district, attention being drawn to the general description of the deposits by Dr. J. M. Joass, and also to the following points:—1. Analyses, by David Forbes and Dr. Heddle, showing the proportion of silver, usually 18·20 per cent.; also of the associated minerals, chiefly iron oxides, thuenite and garnet.—2. The gold occurs in alluvial terraces bordering the rivers, often of very coarse material,—3. Gold has not been found in streams flowing over Old Red Sandstone or Jurassic rocks, but only in those on the crystalline schists.—4. Four statements were quoted with regard to the discovery of gold *in situ*, which, though perhaps not absolutely conclusive, seem to render it pretty certain that it really does exist in some rocks of the district. Next, the work of the Geological Survey was referred to, and the opinion expressed that the map itself will be the result of most real value. On it have been laid down the auriferous alluvia, the granitoid and other veins, and also certain subdivisions which have been established among the crystalline schists. These subdivisions were then given, and the types of rock described. Basic igneous rocks and vein quartz, with which gold is so often associated, are singularly rare at Kildonan. With regard to the superficial deposits, it was remarked that almost the whole surface of the country is covered with glacial drift, not a typical boulder clay, but loose and sandy, and containing here and there beds of gravel and sand, which must, however, be distinguished, from the true alluvial deposits. Mr. Greenly then described a method he had adopted in the hope of discovering whether gold existed in the crystalline schists. Highly decomposed portions of these, which could be dug with a trowel, were selected, and about 350 lbs. washed, like a sand. No visible gold was found, but 610 grains of dark residue were obtained, which on assay yielded 11 dwts. 3 grs. per ton of silver and a trace of gold. The local origin of the gold was, from this, and from the absence of certain rocks and minerals in the drift, held to be confirmed. With regard to the parent rock, vein quartz and basic rocks appear to be insufficient in quantity to account for the gold in the alluvia; and the author inclines, with Dr. Joass, to look rather to certain granites, into which he thinks it likely that the finely-disseminated gold of the schists may have passed under plutonic conditions. Certain theoretical considerations were then entered upon. Finally, it was suggested that, in future investigations, the method of washing decomposed rock, as described, would probably prove fruitful in discovering with certainty the parent rock of the gold, and in deciding whether it exists therein in workable quantity. The author did not expect that the glacial drift would prove to be of much value. Future research was recommended to residents, and the scientific interest of the question was pointed out.

The HON. SECRETARY (Mr. H. M. Cadell, B.Sc., F.R.S.E., F.G.S.), said he had, last autumn, visited this Sutherland gold field along with Mr. Greenley, and had indulged in the fascinating amusement of washing some of the auriferous gravels in the Kildonan and Suisgill burns. He was not, he said, an old hand at gold digging, but after washing a few basinsful of dirt, he had succeeded in getting "the colour" without difficulty. The gravel, when washed off, left a dark heavy residue, consisting chiefly of magnetite grains, garnets, and, occasionally, tourmaline crystals, among which the bright yellow specks of the coveted metal were plainly visible. Mr. Cadell then exhibited samples of the garnetiferous residue with the gold, and of the magnetic iron sand, which he had separated by a magnet. These samples were, no doubt, highly interesting from a scientific point of view, but he did not think that large fortunes were at all likely to be made out of the Sutherland gold alluvia, as these deposits were of very limited extent, the greater part of the region being covered with glacial drift, in which it was useless to expect gold in a sufficiently concentrated form to be profitably extracted. He further exhibited to the society a fine series of specimens of auriferous quartz from the Mallina reef in Western Australia, in which the gold was seen sparkling over the white surface of the rock, and which he wished could be found equally good in Sutherland. A small quantity of stibnite or antimony ore was present in some of the specimens, but in most the gold occurred pure and bright, in a perfectly free milling condition. The Mallina reef, Mr. Cadell explained, was situated in the tropical Pilbarra gold field, which as yet had not attracted so much attention as the Coolgardie and Murchison districts of Western Australia. If, however, further explorations disclosed much ore such as that on the table, it would not be long before the Mallina district, in which many Edinburgh and Glasgow people were practically interested, became as well known and respected as the better developed gold fields further south, in which so much British capital was being expended.

The CHAIRMAN (Mr. Hugh Miller, F.G.S.) in thanking the authors for their communications, said he agreed with Mr. Greenly and Mr. Cadell in all they had said, as he had himself mapped geologically a part of the Sutherland gold field now being investigated by the Geological Survey, and was well acquainted with the whole district.

CALIFORNIA'S QUICKSILVER OUTPUT FOR 1894.—The estimated production of quicksilver in California for the year 1894 is as follows:—

Mine.	Flasks.
New Almaden	7,235
Great Western	5,341
Napa Consolidated	4,930
Standard	4,214
Ætna Consolidated	3,575
Great Eastern	1,368
Redington	1,209
New Idria	1,005
Other sources	1,354
Total, 1894	30,579
" 1893	30,551

THE NITRATE MARKET.—Mr. Thomas Aikman, jun., reports—"The fortnight's arrivals for Europe reach about 47,000 tons, of which 18,000 tons called for orders. Only two cargoes have offered off-coast during the fortnight, and have changed hands at 8s. 7½d. to 8s. 8d., while large due was reported sold at 8s. 6½d., and small at 8s. 7¾d. The close is steady, with buyers of off-coast at about 8s. 7½d. In unarrived and late November-December sailings no business has been reported, values remaining at 8s. 7½d. to 8s. 3d. per hundredweight, while January-February shipment is quoted 8s. 3d. to 8s. Business in April sailing is reported at the equivalent of 8s. 1½d., and in September-October at 8s. 4½d. per cwt. Steamers of January sailing are now arriving, and are being offered at the equivalent of about 8s. 7½d. per cwt. Cable quotations are—Coal, 5s. 6d. to 5s. 9d. per quintal; exchange, 16⅝d.; and freights quiet on spot at 22s. 6d., with about 40,000 tons register disengaged spot tonnage. The estimate of shipments in February is advised as 76,000 tons to Europe and 2000 tons to the United States, while the loading on February 1 will probably reach about 40,000 tons. Of the shipments, 15,000 tons by steamers were dispatched during the first fortnight, against 35,000 tons during the same period last year. The steamers for the second fortnight are expected to reach about 15,000 tons, against 8000 tons last year. The deliveries from European ports for the first half of February were about 35,000 tons, and those for the second half, owing to the delayed arrivals and severe weather, will probably not exceed this, as compared with 145,000 tons during all February of last year. With the break-up of the frost and more free arrivals, larger deliveries are looked for in March."

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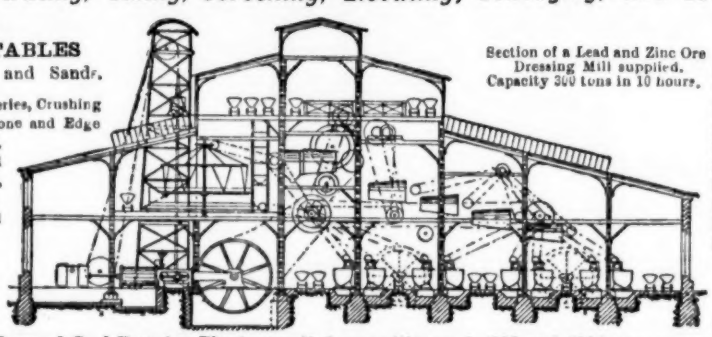

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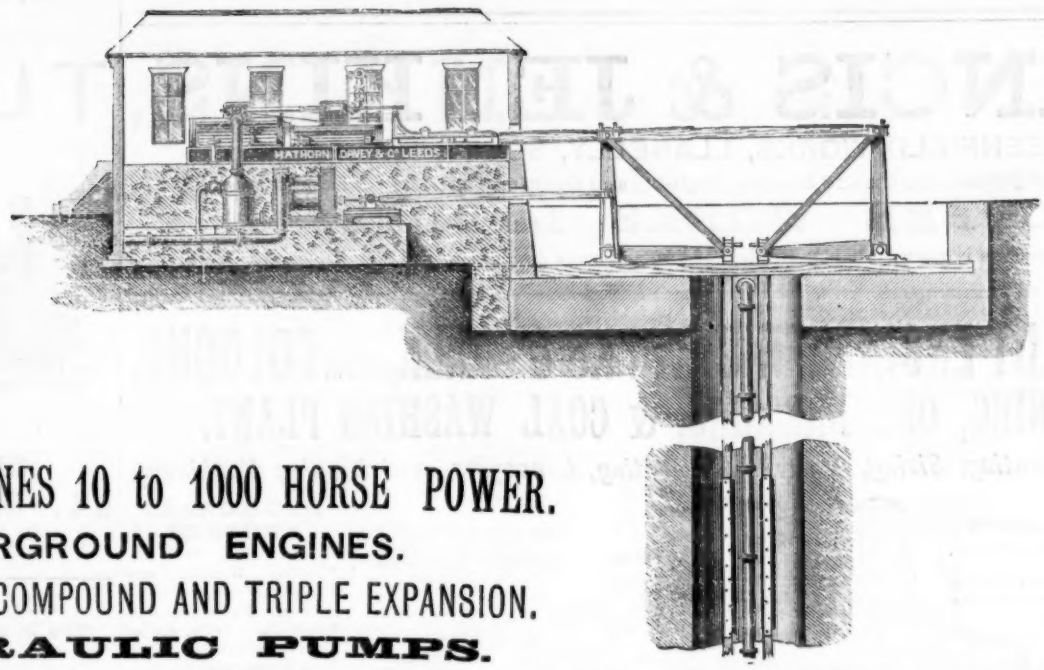

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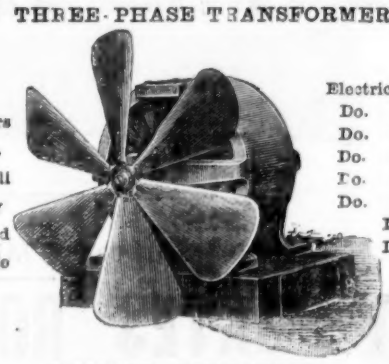

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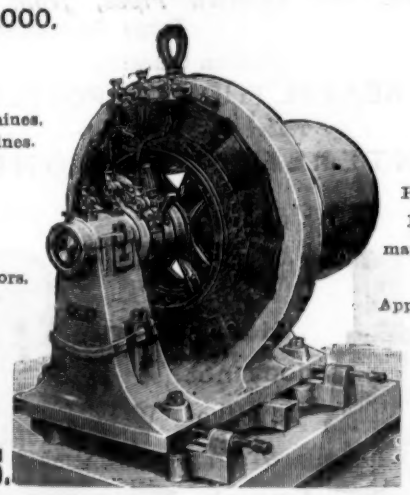

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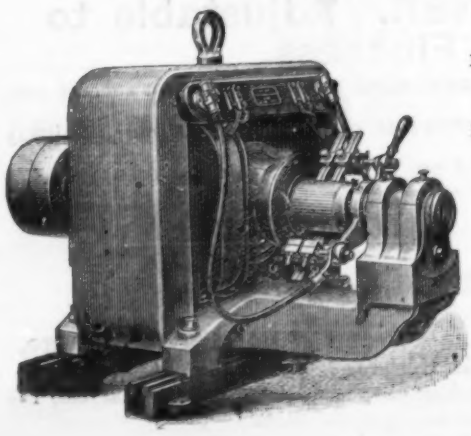

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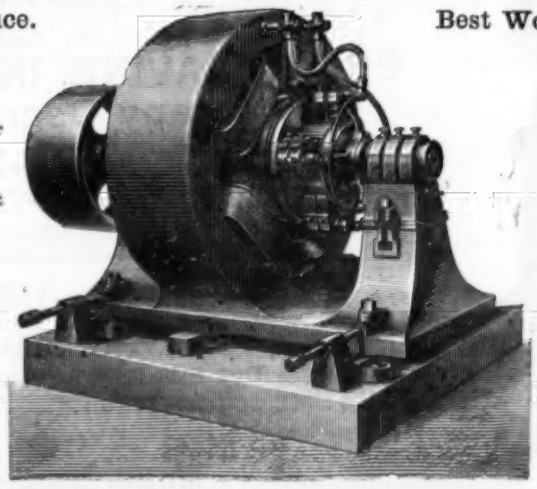

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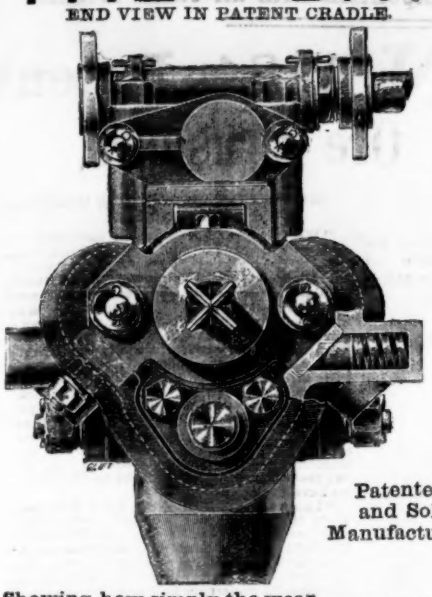

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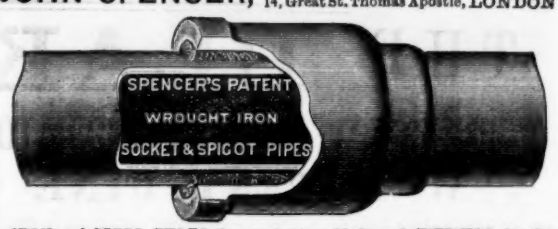

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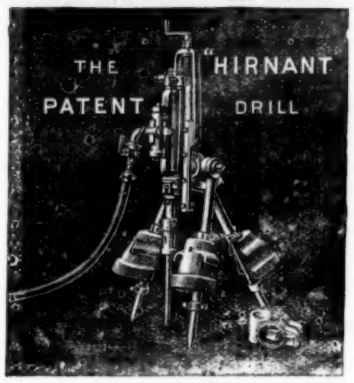

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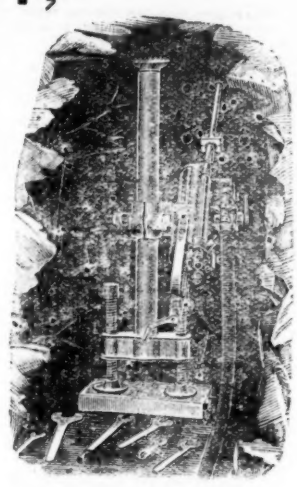

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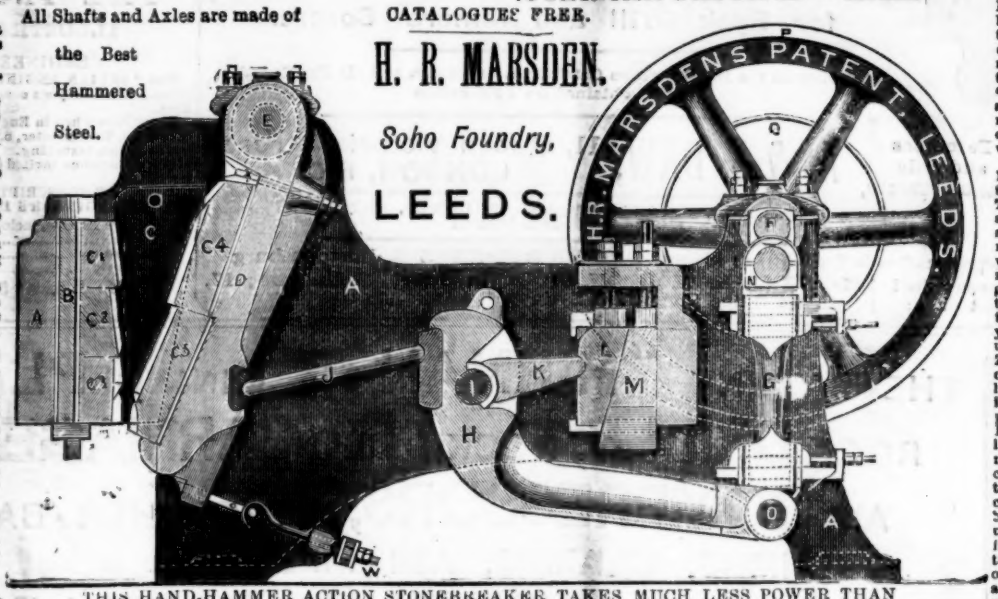

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"I now order three of your Stone Crushers, size 15 by 10, to be of your very best construction, and to include two extra sets of Jaws and Cheeks for each. The last two 24×13 machines you sent me, which are at work in this colony, are doing very well. You will soon find that the railway contractors will adopt your machines in preference to the colonial ones—two of which I have. I know other contractors have had as many as nine of them, which have not given very good satisfaction. Once they know of yours thoroughly, I believe you will do a good trade with the colonies. For reference of the high character of your constructions you can refer to me as having used them with the very best results, both in New Zealand and this colony, and much prefer them to the colonial article, both in point of construction and less liability to go out of order. The material we are crushing is very hard blue stone, for railway ballast purposes. Push on with the order as quickly as possible: I do not think it necessary to have any engineering inspection. I have brought your machines prominently under the notice of all large contractors in this colony, likewise the Government. Many of the contractors have spoken to me in reference to their capabilities, and I could only tell them that they are by far and away the best and most economical I ever used. The very fact of me having purchased eleven from you at various intervals and various sizes, and two above 12 years ago, and having tried all the other makers is sufficient guarantee of the capabilities and the working of your machines. Yours in every way surpass all others."

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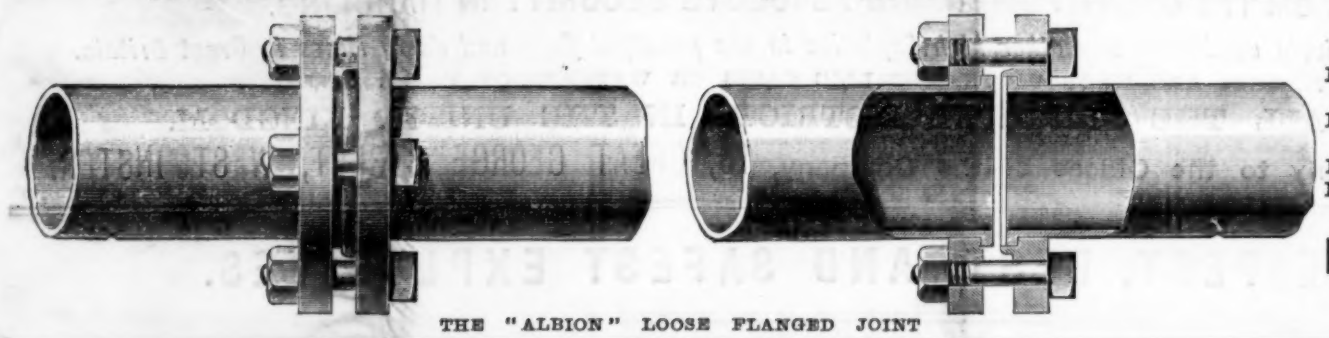

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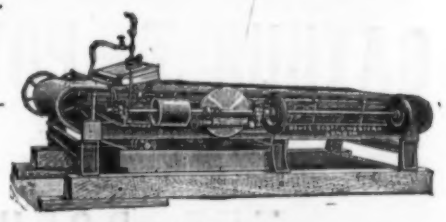

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